Section 6
Land Use and Planning

This section addresses land use and planning in the Delta and Suisun Marsh, Delta watershed, and areas outside the Delta that use Delta water. It describes the associated study area, the environmental and local regulatory setting, potential environmental impacts, and proposed mitigation measures.

The Delta Plan (the Proposed Project) does not propose implementation of any particular physical project; rather, it seeks to influence, either through limited policy regulation or through recommendations, other agencies to take certain actions that will lead to achieving the dual goals of Delta ecosystem protection and water supply reliability. Those actions, if taken, could lead to physical changes in the environment. This is described in more detail in part 2.1 of Section 2A, Proposed Project and Alternatives, and in Section 2B, Introduction to Resources Sections.

The types of changes that could impact land use include physical disruption or division of communities, conflicts for new facilities with applicable land use policy, plans, or regulations, or conflicts between ecosystem and flood risk protections and applicable land use policies, plans or regulations.

Certain topics discussed in this section, such as land cover, property ownership, and population, overlap with topics discussed in other sections of this environmental impact report (EIR); see Section 4, Biological Resources; Section 7, Agriculture and Forestry Resources; Section 10, Cultural Resources; Section 16, Population and Housing; and Section 17, Public Services; for additional information.

Construction and operational impacts would be potentially significant, but could be reduced to less than significant when feasible mitigation measures can be implemented. The Delta Stewardship Council (Council) does not have the authority to require the adoption of mitigation in all cases. Therefore, some activities conducted by other agencies on the basis of Delta Plan recommendations (i.e., activities that are not covered actions) may not be mitigated to a less-than-significant level. For example, this might occur when a restoration project results in seasonal closure of transportation links between existing communities and their associated agricultural areas. Although mitigation measures could provide detour routes to reduce the impact, the mitigation might not reduce the impact to a less-than-significant level, depending on length of additional travel required. In this case, potential land use impacts could be significant and unavoidable. This section evaluates and discloses the significance of land use impacts before and after the implementation of mitigation measures.

6.1 Study Area

The land use study area consists of the Delta and Suisun Marsh, Delta watershed, and areas outside of the Delta that use water from the Delta (Figure 1-1). The Johnston-Baker-Andal-Boatwright Delta Protection Act of 1992 (Delta Protection Act) addressed the legal Delta, as defined by Water Code section 12220, and designated primary and secondary land management zones in the Delta. The Delta encompasses

approximately 737,370 acres and consists of the Primary Zone of the Delta (approximately 490,050 acres) and the Secondary Zone of the Delta (approximately 247,320 acres) (Figure 1-2).

The Primary Zone includes portions of Contra Costa, Sacramento, San Joaquin, Solano, and Yolo counties. Unincorporated towns in the Primary Zone include Clarksburg, Courtland, Hood, Locke, Ryde, and Walnut Grove. The Secondary Zone of the Delta consists of the land and water area within the boundaries of the Delta that is not included in the Primary Zone. The unincorporated areas of the Secondary Zone encompass portions of Alameda, Contra Costa, Sacramento, San Joaquin, Solano, and Yolo counties and the communities of Freeport, Bethel Island, and Discovery Bay. Isleton and portions of the cities of Antioch, Brentwood, Elk Grove, Lathrop, Manteca, Oakley, Pittsburg, Rio Vista, Sacramento, Stockton, Tracy, and West Sacramento are located inside the Secondary Zone.

One percent of the Delta is located in Alameda County, all of which is in the Secondary Zone. The area is a small portion of the overall acreage and no cities or communities are located in that portion of the county. Therefore, Alameda County is only briefly discussed in the Local Regulatory Framework and Land Use and Planning sections. Acreages estimated for the Delta and Suisun Marsh include the acreage located in Alameda County.

The Suisun Marsh totals approximately 106,570 acres in Solano County and overlaps with the boundary of the Delta by approximately 4,300 acres. Throughout this section, all discussion of the Delta Primary Zone, Delta Secondary Zone, or Suisun Marsh refers to the total acreage within the boundaries of the area discussed. All references to the Delta and Suisun Marsh in this EIR, by comparison, account for the total area minus overlapping areas (i.e., 839,640 acres).

Table 6-1 lists cities with incorporated areas or spheres of influence within the Primary Zone, Secondary Zone, and Suisun Marsh, and the acreage within each.

Table 6-1
Incorporated Cities and Associated Sphere of Influence Areas in the Delta and Suisun Marsh

	Acreage within Incorporated City Limits				Acreage within Sphere of Influence		
City Name	Total City	Within Primary Zone	Within Secondary Zone	Within Suisun Marsh	Within Primary Zone	Within Secondary Zone	Within Suisun Marsh
Antioch	18,560	430	7,970	0	470	750	0
Benicia	9,030	0	0	180	0	0	1,840
Brentwood	9,510	0	7,310	0	0	280	0
Elk Grove	26,950	0	160	0	0	0	0
Fairfield	24,330	0	0	410	0	0	0
Isleton	290	0	290	0	0	0	0
Lathrop	12,690	0	9,870	0	0	1,960	0
Lodi	8,950	0	1,020	0	0	0	0
Manteca	11,250	0	1,430	0	0	760	0
Oakley	10,360	250	10,110	0	0	420	0
Pittsburg	12,250	1,480	7,970	0	0	140	1,080
Rio Vista	4,350	990	130	0	420	0	0
Sacramento	63,780	0	6,260	0	0	300	0
Stockton	41,520	840	20,410	0	210	7,720	0
Suisun City	2,640	0	0	40	0	0	10

Table 6-1
Incorporated Cities and Associated Sphere of Influence Areas in the Delta and Suisun Marsh

	Acreage within Incorporated City Limits				Acreage within Sphere of Influence		
City Name	Total City	Within Primary Zone	Within Secondary Zone	Within Suisun Marsh	Within Primary Zone	Within Secondary Zone	Within Suisun Marsh
Tracy*	13,850	0	10,100	0	0	4,800	0
West Sacramento	14,680	0	12,390	0	0	0	0
TOTAL	**284,990**	**3,990**	**95,420**	**630**	**1,100**	**17,130**	**2,930**

Sources: City of Stockton 2011a; City of Tracy 2011a; Contra Costa County 2010; SACOG 2009; San Joaquin County 2008a, 2008b; Solano County 2008a.

* Acreage listed for Tracy's Sphere of Influence is based on revised Sphere of Influence boundaries proposed in Tracy's 2011 General Plan. The revised boundaries are under review by the San Joaquin County Local Agency Formation Commission, which is expected to approve the boundaries by the end of 2011 (SJC LAFCO 2011).

The Delta watershed includes about 28,372,800 acres, excluding the Delta and Suisun Marsh. The Delta watershed includes the watersheds of the Sacramento, Cosumnes, Mokelumne, Calaveras, and San Joaquin rivers. Water from the Delta watershed is used both within and outside of the Delta and Delta watershed, including approximately 24,120,900 acres of agricultural and urban lands outside the Delta watershed in the San Francisco Bay Area (Bay Area), southern San Joaquin Valley, central coast, and Southern California.

As described in Section 2A, Proposed Project and Alternatives, facilities could be constructed, modified, or reoperated in the Delta, Delta watershed, or areas located outside the Delta that use Delta water, and other actions could be taken. It is unclear where any such facilities would be located or actions taken. The Delta is the focus of the Delta Reform Act, so the study area for this resource is focused in the Delta.

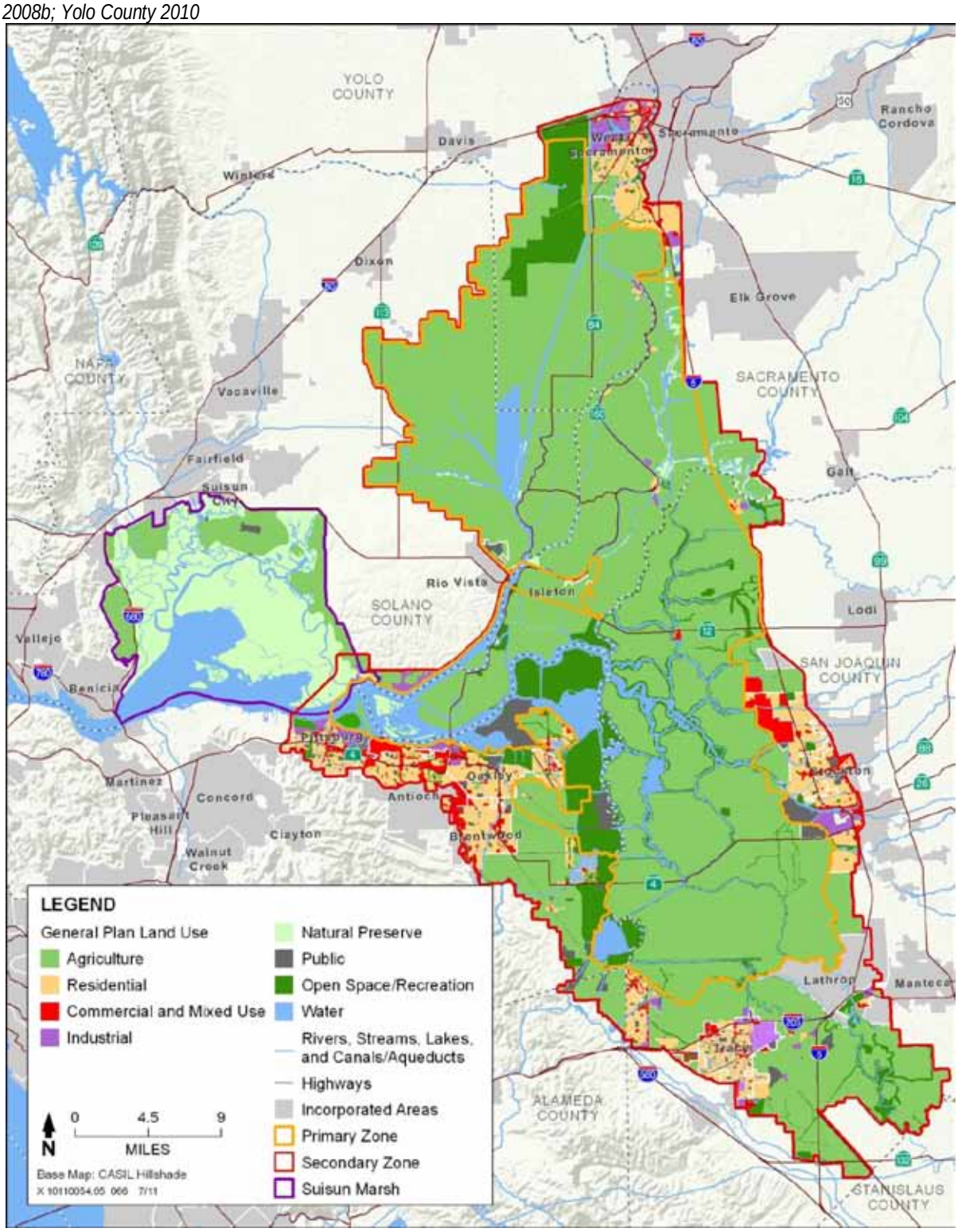
6.2 Regulatory Framework

Appendix D provides an overview of the federal, State, and regional and local plans, policies, laws, and regulations relating to the land use and planning within the study area, including the Delta Protection Commission's Land Use and Resource Management Plan for the Primary Zone of the Delta and the Bay Conservation and Development Commission's San Francisco Bay Plan. Because the focus of this analysis is on the Delta, local land use plans form the basis of the Environmental Setting for this section and are discussed in this section. While local laws such as these are generally not applicable to State agencies, this EIR acknowledges them and analyzes potential conflicts between local land use enactments and the proposed Delta Plan.

6.2.1 Local Land Use Plans

This section identifies goals, objectives, and policies related to land use in adopted local plans of the six counties with territory in the Delta and Suisun Marsh: Sacramento, Yolo, Solano, San Joaquin, Contra Costa, and Alameda. In addition, general plan goals, objectives, and policies have been identified for the following incorporated cities in the Delta that may be affected by the Delta Plan: Isleton, Sacramento, and Elk Grove in Sacramento County; West Sacramento in Yolo County; Rio Vista, Suisun City, Fairfield, and Benicia in Solano County; Tracy, Lathrop, and Stockton in San Joaquin County; and Oakley, Antioch, Pittsburg, and Brentwood in Contra Costa County. General plan land use designations within the Delta and Suisun Marsh are shown in Figure 6-1.

Figure 6-1
General Plan Land Use Designations within the Delta and Suisun Marsh
Sources: California Resources Agency 2004; City of Antioch 2003; City of Brentwood 2001a; City of Isleton 2000; City of Oakley 2009; City of Pittsburg 2011; City of Rio Vista 2001; City of Sacramento 2008; City of Stockton 2011b; City of Tracy 2011b; City of West Sacramento 2010; Contra Costa County 2011; Sacramento County 2008; San Joaquin County 2009a; Solano County 2008b; Yolo County 2010



This section also discusses State "general plans" for areas such as State park system units and wildlife area management plans in the Delta (see Section 6.2.1.7.2).

6.2.1.1 Sacramento County

Isleton, Sacramento, and Elk Grove have incorporated land in the Delta Secondary Zone. The City of Sacramento sphere of influence (SOI) extends into the Secondary Zone (Figure 6-2). The incorporated acreage of these cities, the acreage within the associated SOIs, and the acreage of each within the Secondary Zone are listed in Table 6-1.

6.2.1.1.1 Sacramento County General Plan

The *Sacramento County General Plan*, adopted on December 15, 1993, directs growth and development in the unincorporated area through 2010. The existing *Sacramento County General Plan* planning horizon ended in 2010. In 2002, the county initiated the first comprehensive update of its current general plan since it was adopted in 1993. Adoption of the updated general plan is anticipated in 2011 (Sacramento County 2011). Portions of the general plan identify policies for urban development, including urban communities and the infrastructure necessary to serve them. Other sections of the general plan describe strategies to recognize and preserve areas of open space and natural resources. As a whole, the general plan reflects a balance between the amount and location of land uses in urban areas and those planned to remain in a rural or natural setting.

Open Space Element

The Open Space Element addresses preservation of natural resources over an extensive area of the southern half of the county that is designated for open space uses. Natural resources discussed in the Open Space Element include terrestrial and aquatic habitats and agricultural areas. The Open Space Element includes a discussion and map of the county's open space preservation strategy (Sacramento County 1993). The Open Space Preservation Strategy Diagram depicts extensive areas in the south part of the county as areas subject to flooding, which include lands extending into the Delta and those located in the floodplains of rivers and tributaries south of the county's urban service boundary.

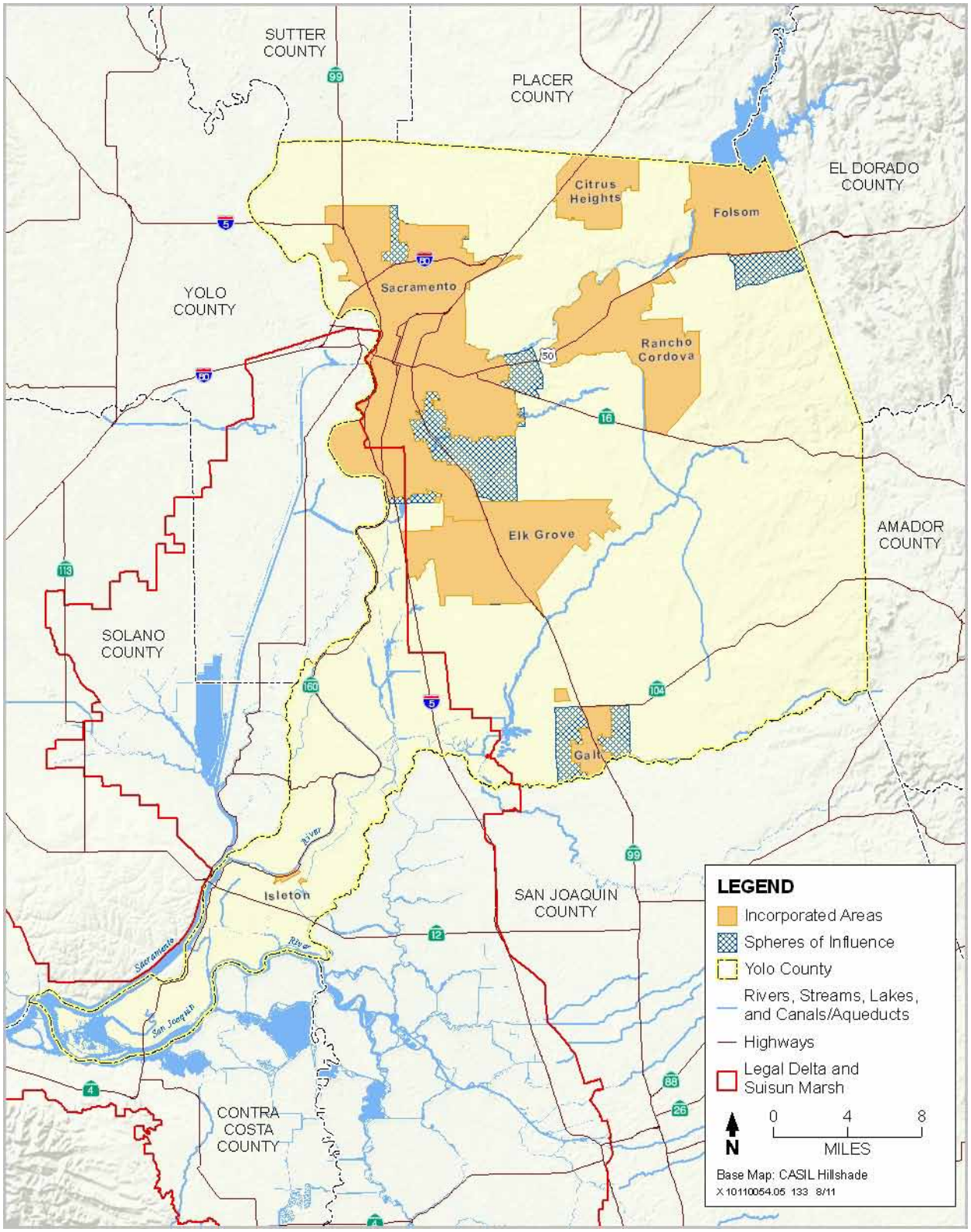
6.2.1.1.2 Lower Andrus Island Special Planning Area

The Sacramento County Board of Supervisors adopted the Lower Andrus Island Special Planning Area (SPA) Ordinance (Title V, Chapter 5, Article 1) in 1989 and amended it in 2005. The intent of the ordinance is to permit the development of the unique and valuable water-oriented commercial and recreational potential of the Lower Andrus Island area while minimizing the loss or disruption of agricultural production and environmental qualities, improving the quality of recreation provided to the public, minimizing flood hazards, and ensuring water access to landward developments.

6.2.1.1.3 Walnut Grove Special Planning Area

The Sacramento County Board of Supervisors adopted the Walnut Grove SPA Ordinance (Title V, Chapter 4, Article 2) in 1989 and amended it in 2005. The intent of the ordinance is to encourage rehabilitation of existing structures and to ensure that construction of new structures is consistent with the area and causes minimal disruption to the lifestyle of the residents. This SPA ordinance recognizes the unique design and environment of Walnut Grove and promotes the retention of viable commercial centers in Historical Preservation Areas, as well as preservation of the cultural aspects of this community. The SPA requires review of projects for consistency with these unique standards.

Figure 6-2
City Spheres of Influence in Sacramento County
Source: SACOG 2009



6.2.1.1.4 Locke Special Planning Area

The Sacramento County Board of Supervisors adopted the Locke SPA Ordinance (Title V, Chapter 4, Article 4) in 1989 and amended it in 2005. The intent of the ordinance is to recognize the existing land uses, encourage the rehabilitation of existing structures, and ensure that construction of new structures is consistent with the area and causes minimal disruption to the lifestyle of the residents. This SPA ordinance recognizes the unique design and environment of Locke and promotes the retention of the viable commercial center in the Historical Preservation Area, as well as preservation of the Chinese-American cultural aspects of the community. The SPA requires review of projects for consistency with these unique standards in conjunction with the Locke Design Guidelines and Secretary of Interior Standards for the Treatment of Historic Properties. The area west of River Road in the Boathouse Commercial Area and areas south of the Historical Preservation Area are not be subject to the Locke Design Guidelines, although rehabilitation and development activities will be sensitive to the cultural/historical nature of the area.

6.2.1.1.5 Town of Courtland Special Planning Area

The Sacramento County Board of Supervisors adopted the Town of Courtland SPA Ordinance (Title V, Chapter 4, Article 5) in 1989 and amended it in 2008. The intent of the ordinance is to recognize the historic, existing, and future uses of historic structures and to encourage the rehabilitation of these structures and the construction of new buildings consistent with the area. Community members have adopted SPA goals and policies to retain viable commercial establishments, conserve historic resources, and preserve a rural setting and cultural aspects of the community. The SPA requires careful review of projects measured against these community standards, but it provides more flexibility for property owners when compared to general standards applied to projects in other parts of the county.

6.2.1.1.6 City of Isleton General Plan

The *City of Isleton General Plan* was adopted in 1999. The entire city is in the Secondary Zone of the Delta. The Resource Management Element of the general plan seeks to preserve productive agricultural lands and includes the following policy that supports the agricultural values of the Delta (City of Isleton 1999, p. V-3):

- **Open Space for Managed Resource Production, Policy 1:** To avoid the premature conversion of agricultural lands both within and outside of the City limits, residential, open space, and industrial "Reserves" have been designated in the General Plan to be withheld (generally) from urban development until after the year 2010.

6.2.1.1.7 City of Sacramento General Plan

The Sacramento City Council adopted the *Sacramento 2030 General Plan* on March 3, 2009 (City of Sacramento 2009). The adoption of the general plan set a new direction for the future of Sacramento. The general plan was shaped by extensive outreach to residents, businesses, developers, and decision makers. It was developed based on the city's smart growth principles, council-adopted vision and guiding principles for the general plan (City of Sacramento 2009).

The Environmental Resources Element addresses water resources, biological species and habitat, urban forests, agricultural land, mineral resources, air, and aesthetic resources. The following policies support the conservation of open space and protection of agricultural lands in the Delta (City of Sacramento 2009, pp. 2-307, 2-316):

- **Policy ER 2.1.2, Conservation of Open Space:** The City shall continue to preserve, protect, and provide access to designated open space areas along the American and Sacramento rivers, floodways, and undevelopable floodplains.

- **Policy ER 4.2.1, Protect Agricultural Lands:** The City shall encourage infill development and compact new development within the existing urban areas of the city in order to minimize the pressure for premature conversion of productive agricultural lands for urban uses.

Pocket Community Plan

The *Pocket Community Plan* area is located southwest of Sacramento's downtown and adjacent to a large bend of the Sacramento River in an area known as the Pocket Area. The *Pocket Community Plan* area contains mostly residential neighborhoods with local employment and retail centers at key intersections. Very little vacant land is available for new development.

South Area Community Plan

The South Area is located in the southernmost part of the City of Sacramento. The area encompasses approximately 23.5 square miles (15,040 acres) and includes incorporated (10,586 acres) and unincorporated (1,423 acres) areas. Redevelopment and infill are starting to occur in the older parts of the South Area. A significant amount of vacant land is scattered throughout the plan area, although the largest concentration of available land is in Delta Shores, a large, undeveloped area at the city's southernmost border and in the Secondary Zone. Delta Shores encompasses approximately 926 acres and is planned to be converted into housing, commercial, and recreational development. Construction of the project will result in the addition of approximately 15,000 residents to the City of Sacramento (UCD 2011).

Sphere of Influence

A portion of the City of Sacramento SOI located south of the *South Area Community Plan* area and Delta Shores extends into the Secondary Zone. This area (300 acres) is designated in the *Sacramento County General Plan* as agriculture or cropland and includes a portion of the Sacramento Regional Wastewater Treatment Plant. Approximately 140 acres of this area includes the community of Freeport and the city-owned Bartley Cavanaugh Golf Course (90 acres of the 140 acres). The City of Sacramento added this area to the SOI in 1981 and considered this area for annexation in 2004. The residents rejected the annexation effort in 2005. The City of Sacramento website indicates that there may be renewed community interest in working with the city to provide sewer services. The remaining acres are included within the boundaries of the Sacramento Regional Wastewater Treatment Plant. The *City of Sacramento General Plan* does not designate uses outside city limits.

6.2.1.1.8 City of Elk Grove General Plan

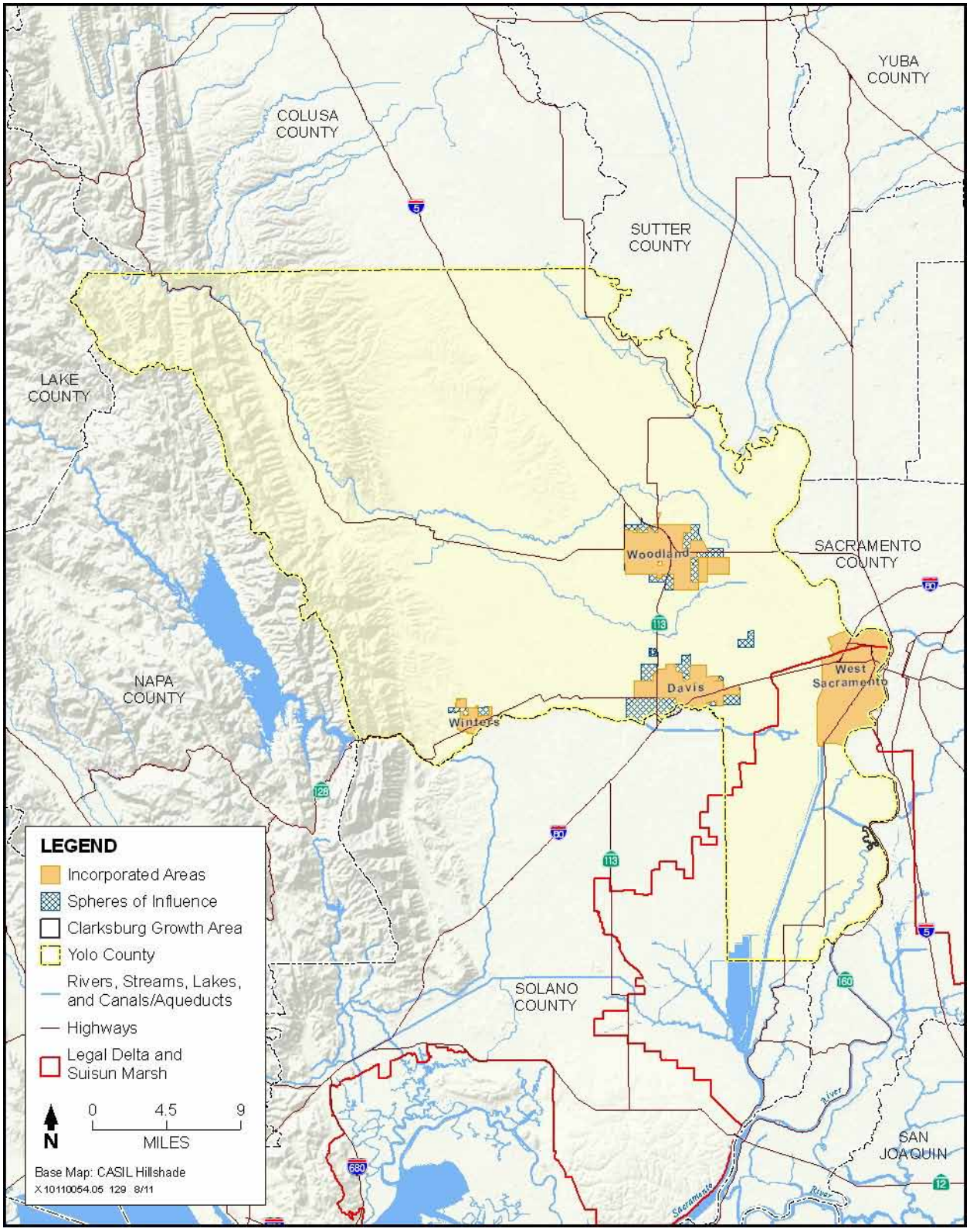
The *City of Elk Grove General Plan* was adopted in 2003. The general plan is a broad framework for planning the future of the city. Where open land exists in Elk Grove, the Land Use Policy Map describes what type of new land uses are desired or whether existing open lands will be retained for agriculture, habitat, or other uses. In some areas, the Land Use Policy Map shows future uses that differ from the existing land uses; in these areas, the general plan foresees change and a transition to new land uses.

The Conservation and Air Quality Element of the general plan addresses land for future development, agricultural lands and soils, and natural habitats. The City of Elk Grove adopted a right-to-farm ordinance during incorporation to afford agricultural operations protection to continue operations and without complaints from nearby residents. It recognized that residents who choose to reside adjacent to agricultural operations must accept any farming-related inconveniences (City of Elk Grove 2003).

6.2.1.2 Yolo County

West Sacramento has incorporated land in the Delta Secondary Zone. The City of West Sacramento SOI is coterminous with the city boundary (Figure 6-3). The incorporated acreage within the Secondary Zone is listed in Table 6-1.

Figure 6-3
City Spheres of Influence in Yolo County
Source: SACOG 2009



6.2.1.2.1 Yolo County General Plan

The *Yolo County General Plan* was adopted on November 10, 2009, and provides for growth and development in the unincorporated area through 2030. The objective of the general plan is to guide decision making in the unincorporated areas in the county toward the most desirable future possible and to identify efficient urbanization with the preservation of productive farm resources and open space amenities (Yolo County 2009). The general plan identifies strategies to recognize and preserve areas of open space and natural resources.

The Land Use and Community Character Element seeks to preserve and foster the rural character of the county, and establishes goals for regional collaboration and equity, green building standards, sustainable community design, and net community benefits from new growth. The Conservation and Open Space Element directs the management of the county's multiple natural and cultural resources, seeks to establish a connected and accessible open space system with communities separated by agriculture and natural spaces linked by a network of trails, and encourages open spaces that complement other land areas in a way that benefits both natural resources and the community. These elements of the general plan identify the following policies that support the values of the Delta (Yolo County 2009, pp. LU 18–24, AG 22–31, CO-15):

Land Use and Community Character Element

- **Policy LU-2.3:** Prohibit the division of land in an agricultural area if the division is for non-agricultural purposes and/or if the result of the division will be parcels that are infeasible for farming. Projects related to clustering and/or transfers of development rights are considered to be compatible with agriculture.
- **Policy LU-3.5:** Avoid or minimize conflicts and/or incompatibilities between land uses.
- **Policy LU-4.1:** Recognize the unique land use constraints and interests of the Delta area.

Conservation and Open Space Element

- **Policy CO-1.17:** Out-of-county mitigation easements in Yolo County for the loss of open space, agriculture, or habitat in other jurisdictions, and flood easements in Yolo County are not acceptable unless the project meets all of the following criteria:
  - Prior notification to Yolo County;
  - Consistency with the goals and policies of the *Yolo County General Plan*, particularly as related to planned growth, infrastructure, and agricultural districts;
  - Secured water rights and infrastructure to economically maintain the proposed mitigation use;
  - Requirements that existing agricultural operations continue to be farmed for commercial gain;
  - Prohibitions on residential use;
  - Mandatory wildlife-friendly strategies and practices;
  - Compensation to Yolo County for all lost direct and indirect revenue; and
  - Accommodation of recreational uses, such as hunting, fishing, bird watching, hiking, etc.

Where proposed easements meet the above criteria, no further approval is needed. Where one or more criteria are not met, discretionary approval is required.

Growth Boundaries

The *Yolo County General Plan* defines growth boundaries as the boundary around the outer perimeter of each area of non-agriculturally designated land within the county. Growth boundaries are identified for all communities and other outlying areas of the unincorporated area of the county. For the incorporated cities, the SOI boundaries are identified as the growth boundary for that city (Yolo County 2009, p. LU-11). The community of Clarksburg's growth boundary is within the Delta Secondary Zone (Yolo County 2009, p. LU-66).

6.2.1.2.2 City of West Sacramento General Plan

The *City of West Sacramento General Plan Policy Document* (City of West Sacramento 1990) was initially adopted on May 3, 1990, and a revised version was adopted on December 8, 2004. The City of West Sacramento is currently updating its general plan. It is anticipated that the updated general plan will be adopted in late 2011.

6.2.1.3 Solano County

Rio Vista is adjacent to the Delta, and portions of the city are on Little Egbert Tract in the Primary Zone and in the Secondary Zone. The City of Rio Vista SOI also extends into the Primary Zone. Fairfield, Benicia, and Suisun City have incorporated land in the Suisun Marsh. The SOIs for Benicia and Suisun City also extend into the Suisun Marsh (Figure 6-4). The incorporated acreage of these cities, the acreage within the associated SOIs, and the acreage within the Primary Zone, Secondary Zone, and Suisun Marsh are listed in Table 6-1.

6.2.1.3.1 Solano County General Plan

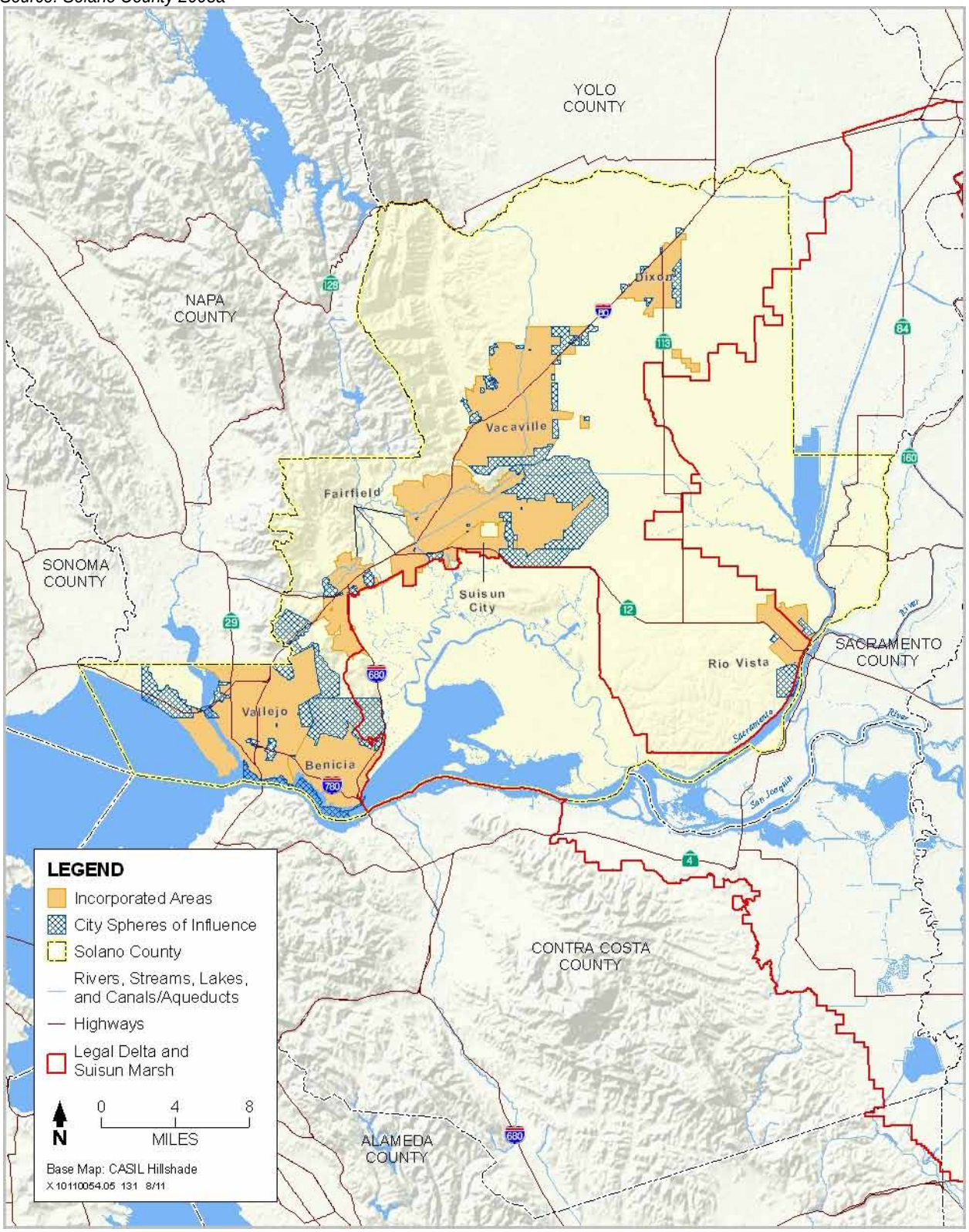
The *Solano County General Plan* was adopted on August 5, 2008. The Resources chapter identifies numerous policies that apply specifically to the Delta and to the Suisun Marsh. The "Marsh" designation has been applied to the Suisun Marsh on the Land Use Diagram. This designation is designed to preserve and enhance the quality and diversity of marsh habitats. Uses in Marsh-designated areas should be restricted to aquatic and wildlife habitat; marsh-oriented recreational uses; agricultural activities that are compatible with the marsh environment and that protect the habitat value of marsh areas; and educational and scientific research opportunities and resources.

Policies from the Resources chapter that apply specifically to the Suisun Marsh area are listed below (Solano County 2008c, pp. AG 28–31, RS 27–29):

Resources Chapter

- **Policy RS.P-13:** Agriculture within the Primary Management Area of the Suisun Marsh should be limited to activities compatible with, or intended for, the maintenance or improvement of wildlife habitat. These include extensive agricultural uses such as grain production and grazing. Intensive agricultural activities involving removal or persistent plowing of natural vegetation and maintenance of fallow land during part of the year should not be permitted.
- **Policy RS.P-14:** Agricultural uses consistent with protection of the Suisun Marsh, such as grazing and grain production, should be maintained in the Secondary Management Area. In the event such uses become infeasible, other uses compatible with protection of the Marsh should be permitted.

Figure 6-4
City Spheres of Influence in Solano County
Source: Solano County 2008a



- **Policy RS.P-20:** The goals, policies, and provisions of the Land Use and Resource Management Plan for the Primary Zone of the Delta are incorporated by reference. Ensure that all public and private management and development activities within the Primary Zone of the Delta are consistent with the goals, policies and provisions of the Land Use and Resource Management Plan for the Primary Zone of the Delta as adopted and as may be amended by the Delta Protection Commission.
- **Policy RS.P-23:** Ensure that extension of new utilities and infrastructure facilities, including those that support uses and development outside the Delta is consistent with the Land Use and Resource Management Plan for the Primary Zone of the Delta. Where construction of new utility and infrastructure facilities is appropriate, the effects of such new construction on the integrity of levees, wildlife, and agriculture activities shall be minimized to the extent feasible.
- **Policy RS.P-24:** Protect the unique character and qualities of the Primary Zone by preserving the cultural heritage and the strong agricultural base.

Suisun Marsh Policy Addendum

The *Solano County General Plan* Resources Element identifies policies that are part of the county's component of the Suisun Marsh Local Protection Program. In addition, Appendix C of the general plan identifies more specific local protection program policies. These policies have also been incorporated into the Solano County component of the Suisun Marsh Local Protection Program and address a variety of issues, including biological resources, wildlife habitat, agriculture, water quality, and recreation. Policies from the *Suisun Marsh Policy Addendum* that support the values of the Delta are listed below (Solano County 2008c, Appendix C, pp. C-3, C-15):

- **Wildlife Habitat Management and Preservation Policy 5:** Where feasible, historic marshes should be returned to wetland status, either as tidal marshes or managed wetlands. If, in the future, some of the managed wetlands are no longer needed for waterfowl hunting, they should also be restored as tidal marshes.
- **Recreation and Marsh Access Policy 3:** Recreational activities that could result in adverse impacts on the environment of the Suisun Marsh should not be permitted.

6.2.1.3.2 Measure A and Measure T – Orderly Growth Initiative

Solano County voters adopted Measure A in 1984. The provisions of Measure A were extended with the adoption of the Orderly Growth Initiative in 1994. Under the provisions of the Orderly Growth Initiative, a popular vote is required to redesignate Agriculture or Open Space lands to another land use category or to increase the density of development on designated Agriculture or Open Space lands.

In November 2008, following adoption of the *Solano County General Plan* update, voters approved Measure T, which extended the provisions of the Orderly Growth Initiative by:

- Approving a new General Plan Land Use Diagram
- Readopting the Orderly Growth Initiative's policies **t**hat require a popular vote in order to change the designation of Agriculture or Natural Resource lands through December 31, 2028
- Approving density standards for development of Agriculture or Natural Resource lands to comply with the updated general plan, and extending the effect of those density standards through December 31, 2028

6.2.1.3.3 City of Rio Vista General Plan

The *City of Rio Vista General Plan 2001* was adopted on July 18, 2002. The Resource Conservation and Management Chapter of the general plan addresses conservation of resources, including resources in the Delta (City of Rio Vista 2002).

Sphere of Influence

The City of Rio Vista SOI extends into the Primary Zone along the city's eastern and southern border. This area (see Table 6-1) is designated as agriculture in the *Solano County General Plan*. The 2007 Rio Vista Municipal Airport Master Plan Update indicated that a proposed airport expansion could require 74 acres to be annexed within the Delta Primary Zone. It is unclear whether this area would be included in the existing SOI. The *City of Rio Vista General Plan* does not designate land uses in the SOI.

6.2.1.3.4 City of Suisun City General Plan

The *City of Suisun City General Plan* was adopted in May 1992. The City of Suisun City is currently updating its general plan. The city anticipates adoption of the updated plan in 2012. One important open space goal of the general plan is the provision of a variety of open spaces to meet community needs for environmental protection, agriculture, recreation, flood management, and water quality. The following Open Space and Conservation Element policy supports Delta Plan goals (City of Suisun City 1992, p. 84):

- **Policy 1: Location of Open Space Lands:** Suisun City will designate certain lands to remain undeveloped or developed only with uses that are consistent with plans and programs (Specific Plan, CIP, Marsh Protection District, etc.) for the use of such lands.

Suisun Marsh Local Protection Program

Under the Suisun Marsh Protection Act, Solano County is required to bring general plan policies, regulations, programs, and operating procedures into conformity with the provisions of the Suisun Marsh Protection Act and the *Suisun Marsh Protection Plan* (see Appendix D, Regulatory Framework) through the preparation of a local protection program. Solano County's local protection program, certified by the San Francisco Bay Conservation and Development Commission, includes general plan policies and other policies, programs, and regulations designed to preserve and enhance the wildlife habitat of the Suisun Marsh and to ensure retention of upland areas adjacent to the marsh in uses compatible with its protection (Solano County 2008c, pp. RS-22, Appendix C-1).

Sphere of Influence

The City of Suisun City SOI extends into the Suisun Marsh along the city's southern border. This small area (less than 10 acres) is designated as industrial in the *Solano County General Plan*. In addition the *City of Suisun City General Plan* designates this area as agriculture and open space. As discussed above, any development with the SOI must be consistent with the Suisun Marsh Protection Plan.

6.2.1.3.5 City of Fairfield

The *City of Fairfield General Plan* was adopted in June 2002. Small portions of the city are located in the Suisun Marsh. Incorporated areas adjacent to the marsh are designated for industrial, commercial, and residential uses. The Open Space Element includes the following policies that support protection of the Suisun Marsh (City of Fairfield 2002, p. OS-2):

- **Policy OS 9.5:** Support acquisition of key parcels on the periphery of the Suisun Marsh to ensure the integrity of the entire marsh.

- **Policy OS 9.6:** Continue to endorse the integrity of the Suisun Marsh Secondary Management Zone.

Sphere of Influence

The City of Fairfield SOI is coterminous with the boundary of the Suisun Marsh.

6.2.1.3.6 City of Benicia

The *City of Benicia General Plan* was adopted on June 15, 1999 (City of Benicia 1999). Land use and growth management policies are provided in the Community Development and Sustainability chapter. The city has a small area of incorporated land in the Suisun Marsh.

Sphere of Influence

The City of Benicia SOI extends into the Suisun Marsh along the city's northern border and west of State Route (SR) 680. This area is designated by Solano County as agriculture with a resource conservation overlay and is identified as a Tri-City/County Cooperative Planning Area. The *City of Benicia General Plan* designates part of this area as general open space in accordance with voter-approved Measure K. As discussed above, any development with the SOI must be consistent with the Suisun Marsh Protection Plan.

6.2.1.4 San Joaquin County

Tracy, Lathrop, Lodi, Manteca, Lathrop, and Stockton have incorporated land in the Delta Secondary Zone, and Stockton has incorporated land in the Primary Zone. The SOIs for Lathrop, Manteca, Stockton, and Tracy extend into the Secondary Zone, and Stockton's SOI also extends into the Primary Zone (Figure 6-5). The incorporated acreage of these cities, the acreage within the associated SOIs, and the acreage within the Primary Zone, Secondary Zone, and Suisun Marsh are listed in Table 6-1.

6.2.1.4.1 San Joaquin County General Plan

The San Joaquin County General Plan 2010 was adopted on July 29, 1992. San Joaquin County is currently updating its general plan. Adoption of the updated general plan is anticipated in summer 2011 (San Joaquin County 2008c).The general plan provides guidance for future growth in a manner that preserves the county's natural and rural assets. Most urban growth in San Joaquin County is directed to existing communities.

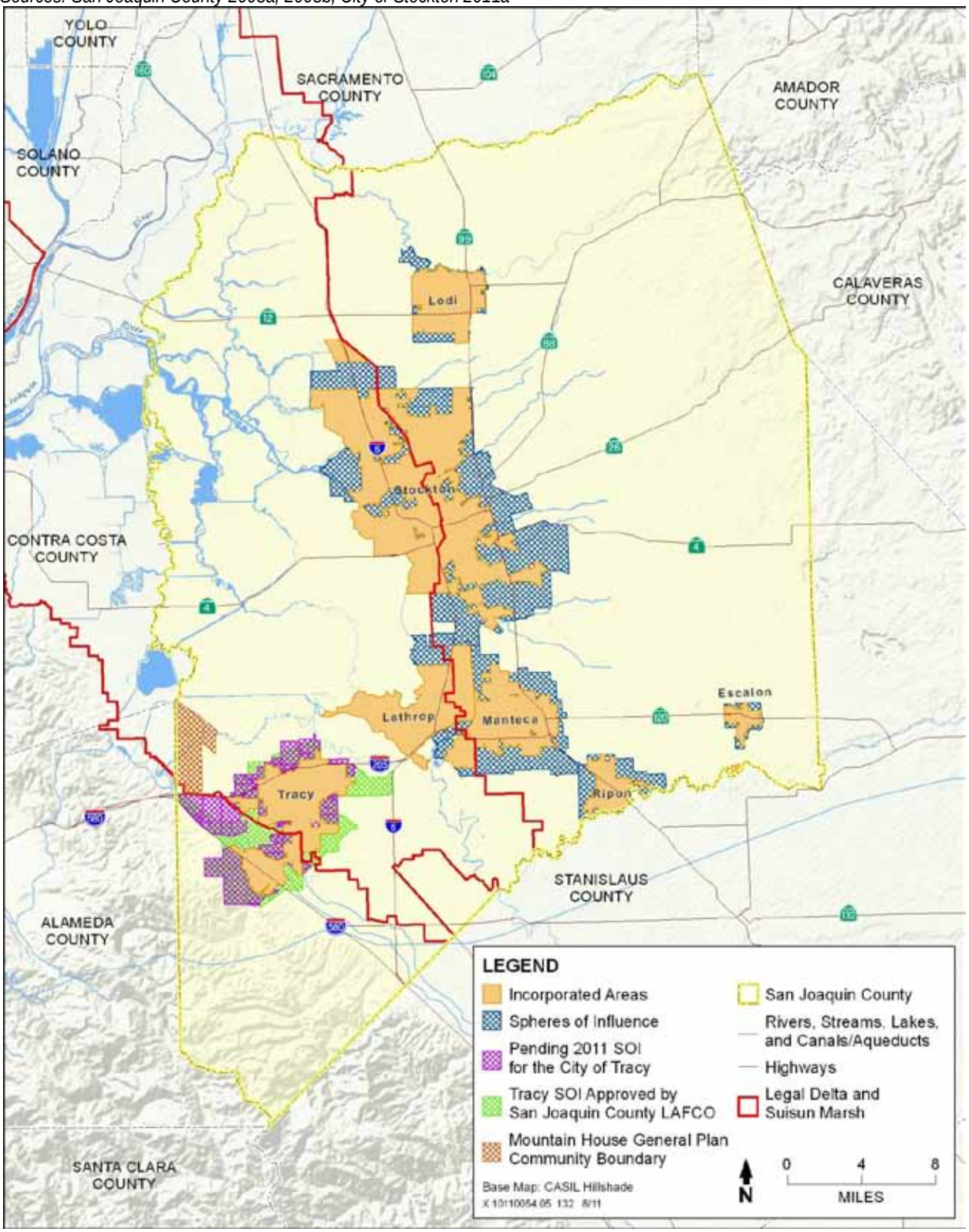
The Resources Element addresses countywide protection of various natural resources, including open space and agricultural lands. The Open Space Policy 4 states that "areas with serious development constraints, such as the Delta, should be predominantly maintained as open space" (San Joaquin County 1992, pp. VI-2, VI-12).

6.2.1.4.2 Mountain House Master Plan and Specific Plans I, II, and III

The Mountain House Master Plan is a community-wide specific plan conforming to the provisions of the State Government Code relating to specific plans; therefore, it is also referred to as the Mountain House Master Specific Plan. The Mountain House Master Plan established the land use framework and overall boundary for a new Mountain House community, located 5 miles from Tracy near Interstate 205 (I-205) within the Delta Secondary Zone at the edge of the San Joaquin County border. Three subsequent specific plans defined land use boundaries more specifically to address different phases of community development (San Joaquin County 1994). Mountain House Specific Plan I was adopted in 1994, and Mountain House Specific Plans II and III were adopted in 2005.

Mountain House is projected to eventually become a small, incorporated city with schools and a town center within walking distance (Mountain House Community Services District 2011). The plan is for more than 15,000 units to be built in 12 stages, creating a city with 22,000 new jobs by 2030.

Figure 6-5
City Spheres of Influence in San Joaquin County
Sources: San Joaquin County 2008a, 2008b; City of Stockton 2011a



Construction began in 2001, and four villages have been built to date: Wicklund, Bethany, Altamont, and Questa (InMountainhouse 2011).

6.2.1.4.3 City of Tracy General Plan

The City of Tracy General Plan was adopted in February 2011. The purpose of the Land Use Element is to shape the future physical development of the city and to preserve, protect, and enhance Tracy's current quality of life. The following land use policies support Delta Plan goals (City of Tracy 2011c, p. 2-29):

- **Policy P1:** The Urban Reserve designation shall be applied to relatively large, contiguous geographic areas where comprehensive planning is expected to occur.
- **Policy P2:** The City shall periodically review and modify Urban Reserve areas as needed to ensure an adequate, long term supply of developable land and balance land uses.

Sphere of Influence

The City of Tracy SOI extends into the Secondary Zone along the city's northern, eastern, southern, and southwestern borders. As shown in Figure 6-5, the City is currently (August 2011) working with the San Joaquin County Local Agency Formation Commission (SJC LAFCO) to adopt a revised SOI to comply with SJC LAFCO policies established in 2007. The revised SOI more accurately reflects locations where the city may grow in the future and locations where no urban growth is expected and will be limited to the Secondary Zone. Note that Table 6-1 describes the acreage of the revised City of Tracy SOI in the Secondary Zone. The revised SOI is approximately 42 square miles and is 20 square miles larger than the city limits, which was approximately 22 square miles as of 2005; it is approximately 7 square miles smaller than the SJC LAFCO–approved 1994 SOI. The revised SOI within the Secondary Zone is designated in the *San Joaquin County General Plan* for residential, commercial, industrial, natural preserve, and open space/recreation uses. In addition, the *City of Tracy General Plan* designates land in this area for agriculture, commercial, industrial, public facilities, and urban reserve uses. Where the city designates urban reserve uses, these areas will require comprehensive planning and the preparation of a specific plan or planned unit development before development.

6.2.1.4.4 City of Tracy Specific Plans

The City of Tracy has adopted three specific plans that have the capacity to accommodate more than 15,000 new housing units: *Tracy Hills Specific Plan* (City of Tracy 1998), *Ellis Specific Plan* (City of Tracy 2008), and *Downtown Specific Plan* (City of Tracy 2010a). Both the *Ellis Specific Plan* and *Tracy Hills Specific Plan* are located near SR-580, which is outside the Secondary Zone. The *Downtown Specific Plan* will allow for increased development capacity within the existing downtown area by increased density up to 40 units per acres (City of Tracy 2010b, pp. 51–58).

6.2.1.4.5 City of Lathrop General Plan

The Resource Management Element of the *Comprehensive General Plan for the City of Lathrop* addresses agricultural lands; vegetation, fish, and wildlife habitat; and cultural resources. More than half of the city is located in the Delta. The city assumes complete build out of the general plan in the subplan areas and protects lands outside of these areas from conversion (City of Lathrop 1991).

Sphere of Influence

The City of Lathrop SOI extends into the Delta Secondary Zone along the city's northern and southern borders. This area (acreage listed in Table 6-1) is designated in the *San Joaquin County General Plan* for residential, commercial, industrial, natural preserve, and open space / recreation uses. In addition, the *City of Lathrop Comprehensive General Plan* designates land in this area for resource/open space, commercial, and industrial uses.

6.2.1.4.6 Central Lathrop Specific Plan

The *Central Lathrop Specific Plan* area comprises approximately over 1,500 acres located west of Interstate 5 (I-5) and east of the San Joaquin River in the Delta Secondary Zone. The plan area is located just north of the I-5/I-205/SR-120 interchange (City of Lathrop 2004). The *Central Lathrop Specific Plan* envisions a vibrant and livable community that offers a balanced mix of residential neighborhoods; retail, office, service-related, and other employment-generating land uses; and public/semipublic uses, such as schools, parks, and other civic-oriented facilities. Approximately 6,800 dwelling units and 5 million square feet of office and retail uses are planned for the area. The *Central Lathrop Specific Plan* project obtained city council and planning commission entitlements in November 2004 and was annexed into the city in September 2005.

6.2.1.4.7 City of Stockton General Plan

The *Stockton General Plan 2035* community development section applies a local and regional approach to population growth, economic diversification, protection of natural and working landscapes, and creation of a walkable and healthy community in its goals, policies, and implementation measures. The plan uses districts and villages as planning increments for growth and reinvestment in existing parts of the community while encouraging concentric growth with an emphasis on continued success in revitalizing central Stockton. The following Land Use Element policies support Delta Plan goals (City of Stockton 2007, p. 3-12):

- **Policy LU-2.1: Agricultural Land Preservation.** The City shall limit the wasteful and inefficient sprawl of urban uses into agricultural lands.
- **Policy LU-2.2: Agricultural Buffer.** The City shall support the establishment of a permanent agricultural/open space buffer along the ultimate edge of the Urban Service Area. Buffer or setback areas would follow along parcel boundary lines and be established with a minimum width of 100 feet.

The Urban Service Area referenced in Policy LU-2.2 encompasses most of Stockton west of I-5, including lands within the Delta Secondary Zone.

Sanctuary Master Development Plan

The *Sanctuary Master Development Plan* provides a framework for guiding development of approximately 1,728 acres of a 1,967-acre site within the incorporated area in the Delta Secondary Zone. The project site is located west of I-5 in the northwestern portion of the city. The plan envisions a walkable community with a mixed use core, a high level of amenities, and residential neighborhoods. The following uses are planned: 7,070 dwelling units, 483,984 square feet of office space, 208,272 square feet of retail space, and approximately 100 hotel rooms.

Waterfront Redevelopment Project Area Plan

The *Waterfront Redevelopment Project Area Plan* was adopted in June 2009 by the City of Stockton and the Redevelopment Agency to merge three independent Redevelopment Areas: Rough and Ready Island, Port Industrial, and West End. The project area is approximately 3,420 acres and includes most of downtown Stockton. Much of the recent work in this area has focused on Stockton's waterfront and the head of the Stockton Channel.

Sphere of Influence

The City of Stockton SOI extends into the Primary Zone and Secondary Zone (acreage listed in Table 6-1) along the city's northern, southern, and western borders. In addition, portions of the SOI area in the Delta Secondary Zone are currently unincorporated "island" areas surrounded by incorporated

areas, as shown in Figure 6-5. The SOI areas are designated in the *San Joaquin County General Plan* for agriculture, residential, commercial, and public uses. In addition, the *City of Stockton General Plan* designates this area for residential, commercial, mixed-use, and recreation uses.

6.2.1.4.8 City of Manteca

The *City of Manteca General Plan* was adopted in October 2003 (City of Manteca 2003, p. 1-1). The southwest corner of the city includes incorporated land in the Secondary Zone.

Sphere of Influence

The City of Manteca SOI extends into the Delta Secondary Zone along the city's southwestern border. This area is designated in the *San Joaquin County General Plan* for residential, commercial, and agriculture uses. In addition, the City of Manteca designates this area as residential, commercial, agriculture, and open space.

6.2.1.5 Contra Costa County

Portions of the cities of Oakley, Antioch, and Pittsburg are located in the Primary Zone and Secondary Zone of the Delta. A portion of Brentwood is in the Secondary Zone. The SOI for Antioch extends into the Primary Zone. The SOIs for each of these cities also extend into the Delta Secondary Zone (Figure 6-6). The City of Pittsburg SOI extends into open water in the Suisun Marsh corresponding to the county boundary. The incorporated acreage of these cities, the acreage within the associated SOIs, and the acreage within the Primary Zone, Secondary Zone, and Suisun Marsh are listed in Table 6-1.

6.2.1.5.1 Contra Costa County General Plan

A comprehensive update to the *Contra Costa County General Plan* was adopted on January 18, 2005, to guide future growth, development, and resource conservation through 2020 (Contra Costa County 2005). *Contra Costa County General Plan* policies that support Delta Plan goals are listed below (Contra Costa County 2005, pp. 3-37–3-39, 8-3):

Land Use Element

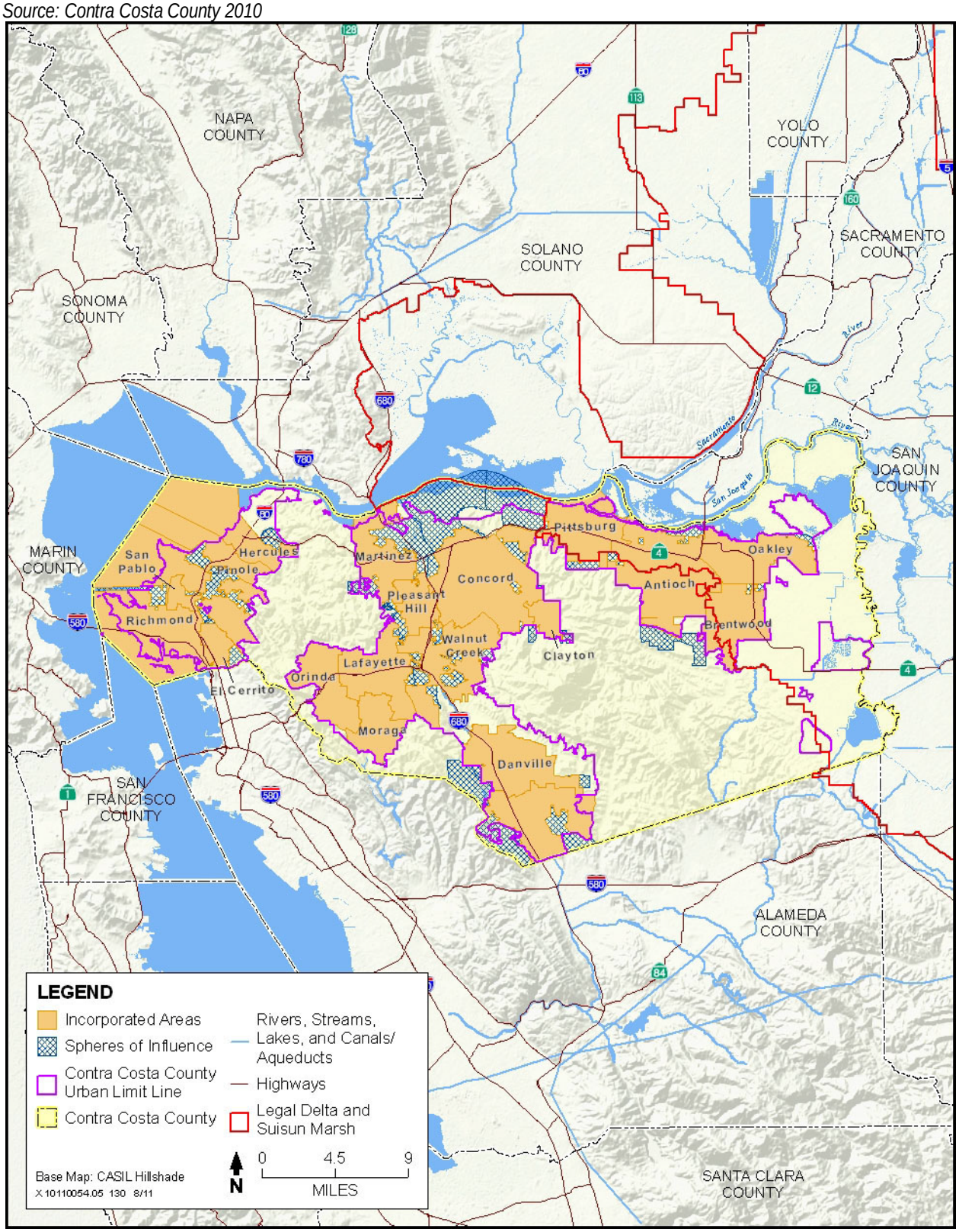
- **Policy 3-54:** All public and private management and development activities within the Primary Zone of the Delta shall be consistent with the goals, policies, and provisions of the "Land Use and Resource Management Plan for the Primary Zone of the Delta" as adopted and as may be amended by the Delta Protection Commission.

- **Policy 3-69:** The Southeast County area is almost exclusively planned for agricultural, watershed, or public purposes. New land uses within this plan area should be limited to those which are compatible to the primary agricultural and watershed purposes of the area (farming, ranching, poultry raising, animal breeding, aviaries, apiaries, horticulture, floriculture, and similar agricultural uses and structures) and consistent with the multiple use philosophy enumerated by this plan.

  - Subject to specific project review and the policies listed within this plan, the following uses are generally consistent with the planned agricultural areas:

    - Public and private outdoor recreational facilities;
    - Dude ranches, riding academies, stables;
    - Wind energy conversion systems;
    - Single family residences on larger lots (1.0 to 2.9 dwelling units per acre);
    - Mineral resources quarrying;

Figure 6-6
City Spheres of Influence in Contra Costa County
Source: Contra Costa County 2010



- Oil and gas wells;
- Pipelines and transmission lines; and
- Veterinarian offices and kennels.

Conservation Element

- **Policy 8-2:** Areas that are highly suited to prime agricultural production shall be protected and preserved for agriculture, and standards for protecting the viability of agricultural land shall be established.

Contra Costa County Urban Limit Line

The Contra Costa County Urban Limit Line (ULL) is defined by the Contra Costa County General Plan Land Use Element[1]. The ULL identifies the outer boundaries of urban development in the county. The ULL limits potential urban development in the county to 35 percent of the land in the county and prohibits the county from designating any land located outside the ULL for an urban land use. Undeveloped land located inside the ULL may be developed, but a substantial portion of this land must be retained for open space and recreational uses. The ULL extends into the Delta Secondary Zone in the northeastern part of the county, including a small portion in the Delta Primary Zone (the community of Knightsen and Browns Island) (Contra Costa County 2005, pp. 1-9 to 1-30).

Measure C

In 1990, voters passed Measure C to establish an ULL in the county and the 65/35 Land Preservation Standard, the latter of which limits development to no more than 35 percent of the land in the county and preserves at least 65 percent of land for agriculture, open space, wetlands, parks, and other nonurban uses (Contra Costa County 2005, p. 1-2). Because of flood hazards, soil subsidence, lack of infrastructure, and lack of services, most of the Delta is outside the ULL.

Measure L

In November 2006, voters approved Measure L, which requires voter approval for any proposal to extend the ULL by more than 30 acres. Provisions of the ULL are in effect through 2026. Except for Bethel Island and an area around Discovery Bay, most of the eastern portion of the county is outside the ULL (Contra Costa County 2005, p. 3-10, Figure 3-1).

6.2.1.5.2 City of Oakley General Plan

The *City of Oakley General Plan* was adopted on December 16, 2002. The Open Space and Conservation Element of the general plan addresses protection of environmental resources, open space, and scenic resources. The following goal from the Open Space and Conservation Element supports Delta Plan goals (City of Oakley 2002, p. 6-3):

- **Goal 6.1:** Allow agriculture to continue as a viable use of land that reflects the community's origins and minimizes conflicts between agricultural and urban uses.

Sphere of Influence

The City of Oakley SOI extends into the Delta Secondary Zone along the city's northeastern border. This area is designated in the *Contra Costa County General Plan* for residential, commercial, and agriculture uses. In addition, the *City of Oakley General Plan* designates this area for residential, commercial, and agriculture uses.

[1] Urban Limit Line Map as amended November 7, 2006.

6.2.1.5.3 City of Antioch General Plan

The *City of Antioch General Plan* establishes how Antioch will manage its future and is the city's official policy statement identifying the manner in which Antioch expects to coordinate its activities with those of other agencies.

Sphere of Influence

The City of Antioch SOI extends into the Delta Primary Zone and Secondary Zone along the city's northern border. This area includes land in the San Joaquin River, an area currently being considered for annexation as the Northeast Annexation area (near the Antioch Bridge), and another area that is the site of the Contra Costa County Fair. The Northeast Annexation area includes heavy industrial uses (including the Mirant Marsh Landing Power Plant), marinas, storage, and more than 100 residences. The purpose of the annexation is to provide municipal services and wastewater services to these areas, including to the Mirant Marsh Landing Power Plant. The entire area is designated in the *Contra Costa County General Plan* for industrial, commercial, and open space uses. The *City of Antioch General Plan* designates the area near the Antioch Bridge as the Eastern Waterfront Employment Area and includes policies to guide revitalization and cleanup of industrial brownfields; it designates the Contra Costa County Fair parcel as public/institutional.

6.2.1.5.4 City of Pittsburg General Plan

The *City of Pittsburg General Plan* was adopted in 2001 (City of Pittsburg 2001). The city's Los Medanos Community Development Project Area is in the Delta.

Sphere of Influence

The City of Pittsburg SOI extends into the Secondary Zone and Suisun Marsh along the city's northern border to meet the county boundary. The area in the Secondary Zone is located in the San Joaquin River (offshore from the mainland) and is designated in the *Contra Costa County General Plan* for open space, industrial, public, and residential uses.

6.2.1.5.5 City of Brentwood General Plan

The *City of Brentwood General Plan* originally was adopted in 1993 and was updated in November 2001. Most of the incorporated area of Brentwood is located in the Secondary Zone. The general plan land use map identifies more than 20,000 acres beyond the city limits but within the general plan planning area as Agricultural Conservation (City of Brentwood 2001b).

Sphere of Influence

The City of Brentwood SOI extends into the Delta Secondary Zone along the city's northern border. This area is designated in the *Contra Costa County General Plan* for residential and agriculture use. The *City of Brentwood General Plan* does not identify land use designations for areas beyond the city limits.

6.2.1.6 Alameda County

No cities in Alameda County have incorporated land or SOIs in the Delta.

6.2.1.6.1 East County Area Plan

Land use planning in the eastern portion of Alameda County is governed by the *East County Area Plan*, which was adopted as a part of the general plan by the county in May 1994. The plan governs land uses in the county over an area that generally extends eastward from the hilly region through the middle of the county, including a small portion of the Delta.

The Open Space Element addresses sensitive lands and regionally significant open spaces, including agricultural land. *East County Area Plan* policies that support Delta Plan goals include (Alameda County 2000, pp. 18–24):

- **Policy 52:** The County shall preserve open space areas for the protection of public health and safety, provision of recreational opportunities, production of natural resources (e.g., agriculture, windpower, and mineral extraction), protection of sensitive viewsheds, preservation of biological resources, and the physical separation between neighboring communities.
- **Policy 54:** The County shall approve only open space, park, recreational, agricultural, limited infrastructure, public facilities (e.g., limited infrastructure, hospitals, research facilities, landfill sites, jails, etc.), and other similar and compatible uses outside the Urban Growth Boundary.
- **Policy 74:** The County shall require that, where conflicts between a new use and existing use are anticipated, the burden of mitigating the conflicts be the responsibility of the new use.

6.2.1.6.2 Measure D

In November 2000, the Alameda County electorate approved the *Save Agriculture and Open Space Lands Initiative* (Measure D). The initiative amended portions of the county general plan, including the *East County Area Plan*. The purposes of this initiative are to preserve and enhance agriculture and agricultural lands and to protect the natural qualities, the wildlife habitats, the watersheds, and the open space of Alameda County from excessive, badly located, and harmful development. The measure establishes a County Urban Growth Boundary that will focus urban-type development in and near existing cities, where it will be served by public facilities, thereby avoiding high costs to taxpayers and users as well as to the environment. The ordinance is designed to remove the county government from urban development outside the Urban Growth Boundary, which does not extend into the Delta.

6.2.1.7 Other Delta and Suisun Marsh Plans and Regulations

6.2.1.7.1 Local Airport Land Use Compatibility Plans

Airport land use commissions (ALUC) prepare airport land use compatibility plans (ALUCP) and ensure that county and city plans (general, specific, and other) are consistent with the relevant ALUCP. On an advisory basis, ALUCs establish the policies on land uses around an airport to ensure that they are compatible with airport operations. ALUCs also evaluate the compatibility of proposed local agency land use policy actions with provisions in the ALUCP (Caltrans 2002).

Jurisdictions in counties that do not have ALUCs (other than counties that are exempt) must adopt ALUCPs or policies for public use airport environs located within their borders. Compatibility planning for private use airports is not required. Compatibility policies can be adopted as separate documents equivalent to ones adopted by ALUCs, or they can be folded into general plans or other local policy documents (Caltrans 2002).

Cities and counties have a responsibility to ensure the orderly development of airports in their jurisdiction and to make sure applicable planning documents and building regulations are consistent with the ALUCP. They also have the final decision on local land use issues and have the ability to overrule ALUC determinations, with conditions (Caltrans 2002). Table 6-2 summarizes ALUCPs for airports located in or near the Delta and Suisun Marsh.

In addition to the airports identified in Table 6-2, the following airports are located near the legal Delta and Suisun Marsh: Mather Airport and Elk Grove Airport in Sacramento County; Yolo County Airport and University Airport in Yolo County; Nut Tree Airport and Travis Air Force Base Airport in Solano County; Lodi Airpark in San Joaquin County; and Livermore Airport in Alameda County.

Table 6-2
Airport Land Use Compatibility Plans In or Near the Delta and Suisun Marsh

County	From Nearest City/Town	Facility Name	Land Use Authority	Ownership	Use	Airport Land Use Plan
Sacramento	4 miles southeast of Franklin	Franklin Field	SACOG	Public	Public	*Franklin Field Comprehensive Land Use Plan* (amended December 1992)
	3 miles south of Sacramento	Executive Airport	SACOG	Public	Public	*Sacramento Executive Airport Comprehensive Land Use Plan* (amended May 1999)
	12 miles north of Sacramento	Sacramento International Airport	SACOG	Public	Public	*Sacramento International Airport Comprehensive Land Use Plan* (amended January 1994)
Yolo	2 miles northeast of Clarksburg	Borges-Clarksburg Airport	Yolo County Planning Division	Private	Private	None
Solano	3 miles northwest of Rio Vista	Rio Vista Municipal Airport	Solano County Airport Land Use Commission	Public	Public	Solano County Airport Land Use Commission review procedures
San Joaquin	4 miles southwest of Lodi	Kingdon Airpark	San Joaquin Council of Governments	Private	Public	*San Joaquin County Airport Land Use Compatibility Plan* (amended 2009)
	4 miles north of Lodi	Lodi Airport	San Joaquin Council of Governments	Private	Public	*San Joaquin County Airport Land Use Compatibility Plan* (amended 2009)
	3 miles southeast of Stockton	Stockton Metropolitan Airport	San Joaquin Council of Governments	Public	Public	*San Joaquin County Airport Land Use Compatibility Plan* (amended 2009)
	7 miles southeast of Tracy	New Jerusalem Airport	San Joaquin Council of Governments	Public	Public	*San Joaquin County Airport Land Use Compatibility Plan* (amended 2009)
	3 miles southwest of Tracy	Tracy Municipal Airport	San Joaquin Council of Governments	Public	Public	*San Joaquin County Airport Land Use Compatibility Plan* (amended 2009)
Contra Costa	2 miles south of Byron	Byron Airport	Contra Costa County Airport Land Use Commission	Public	Public	*Contra Costa County Airport Land Use Compatibility Plan* (adopted December 2000)
	1 mile northwest of Concord	Buchanan Field Airport	Contra Costa County Airport Land Use Commission	Public	Public	*Contra Costa County Airport Land Use Compatibility Plan* (adopted December 2000)

Source: Compiled by AECOM in 2010

SACOG: Sacramento Area Council of Governments

6.2.1.7.2 General Plan for Brannan Island and Franks Tract State Recreation Areas

Similar to general plans for cities and counties, general plans are also required for individual State park system units. Before any State-budgeted improvements can be made at a unit, a general plan is required by law to set forth the department's long-term management objectives with respect to natural and cultural resources, visitor use, facility development, interpretation, and general operations. The *General Plan for Brannan Island and Franks Tract State Recreation Areas* was adopted by the California State Park and Recreation Commission in 1987. The general plan describes the resource management policies, allowable use levels, land use and facility recommendations, and interpretive recommendations for the two State Recreation Areas (SRA). It is intended to guide acquisition, land use, development, and operation of these two recreation facilities and describes an improvement program for the Brannan Island SRA that addresses many landscape and habitat management zones for the park (State Parks 1987). These management zones establish the basis for various planting strategies that are consistent with the overall resource management, interpretive, and recreation use goals.

6.2.1.7.3 California Department of Fish and Game Wildlife Area Management Plans

The California Department of Fish and Game (DFG) owns and manages several areas in the Delta, primarily for habitat and species protection and enhancement. Land management plans have been prepared for only two of the seven areas owned by DFG: Yolo Bypass Wildlife Area and Lower Sherman Island Wildlife Area. The other areas are managed under the current regulations found in the California Fish and Game Code and Title 14 of the California Code of Regulations.

Yolo Bypass Wildlife Area Land Management Plan

DFG prepared the *Yolo Bypass Wildlife Area Land Management Plan* to guide the management of habitats, species, appropriate public use, and programs to achieve DFG's mission; direct an ecosystem approach to managing the Yolo Bypass Wildlife Area in coordination with the objectives of the CALFED Ecosystem Restoration Program; identify and guide appropriate, compatible public use opportunities in the Yolo Bypass Wildlife Area; and direct the management of the area in a manner that promotes cooperative relationships with adjoining private property owners. The land management plan identifies eight elements and eight goals that provide broad guidance for managing the Yolo Bypass Wildlife Area and tasks to achieve those goals (DFG 2008). No goals identified for land use resources relate to the Delta Plan.

Lower Sherman Island Wildlife Area Land Management Plan

DFG prepared the *Lower Sherman Island Wildlife Area Land Management Plan* to guide management of habitats, species, and programs in order to achieve DFG's mission to protect and enhance wildlife values. The plan is also intended to serve as a guide for appropriate public uses of the Lower Sherman Island Wildlife Area.

The land management plan has 11 elements and identifies 34 goals that describe the management of each element and the intended long-term results and 142 tasks that identify individual projects or work elements that implement the goals and are useful in planning operation and maintenance budgets (DFG 2007a). No goals identified for land use resources would be relevant to the Delta Plan.

6.2.1.7.4 Cosumnes River Preserve Management Plan

The Sierra Resource Management Plan required preparation of a management plan for the Cosumnes River Preserve (BLM 2008, p. 39). The Cosumnes River Preserve consists of approximately 45,859 acres of wildlife habitat and agricultural lands located along the Cosumnes River, east of I-5 near the town of Walnut Grove. The Cosumnes River Preserve Management Plan is designed to (a) restore and maintain native biological communities and the resident and migratory species dependent on them to sustainable

conditions and populations and (b) improve stewardship of the lands in the Cosumnes River watershed through compatible use. The plan is administered by seven partners: the U.S. Bureau of Land Management (BLM), DFG, the California Department of Water Resources (DWR), the California State Lands Commission, Sacramento County, Ducks Unlimited, and The Nature Conservancy (Cosumnes River Preserve 2008, p. ES-1).

6.2.1.8 Plans and Regulations for the Delta Watershed and Areas Outside the Delta That Use Delta Water

General plan land use designations within the Delta watershed and areas outside the Delta that use Delta water are shown in Figure 6-7.

Although these local regulations do not apply to State agencies, these agencies will often voluntarily comply with local plans, regulations, and associated permitting requirements. Some activities associated with Delta Plan implementation may be subject to local zoning or other ordinances and general plans of cities and counties in the Delta watershed and areas outside the Delta that use Delta water. These regulatory requirements may include compliance with general plan elements, and grading permits.

6.3 Environmental Setting

This section describes existing pattern of development in the Delta, Suisun Marsh, Delta watershed, and areas outside the Delta that use Delta water based on land cover, development patterns, and population. As described in Section 6.2, Regulatory Framework, land use and land use planning is governed by cities and counties and implemented through a range of programs dictated by general plans, special area plans, specific plans, master plans, redevelopment plans, zoning, and other local enactments. In addition, regional, State, and federal agencies help determine land use in local communities outside of the jurisdiction of what is governed by local agencies. Figures 6-1 and 6-7 show land use patterns based on general plan land use regulation.

This description of the land use environmental setting is based on types of "land cover" derived from an analysis of satellite imagery verified by field observations, and, although similar, is not the identical to each individual, site-specific land use. There is no Delta or Statewide database that provides this information on existing land use. Figures 6-8 and 6-11 show land cover based on DWR, DFG, and California Resources Agency interpretations of satellite imagery for the purposes of habitat mapping and classifies land into four categories (i.e., agriculture, natural habitat, water, and developed); the data are presented here and in Section 4, Biological Resources.

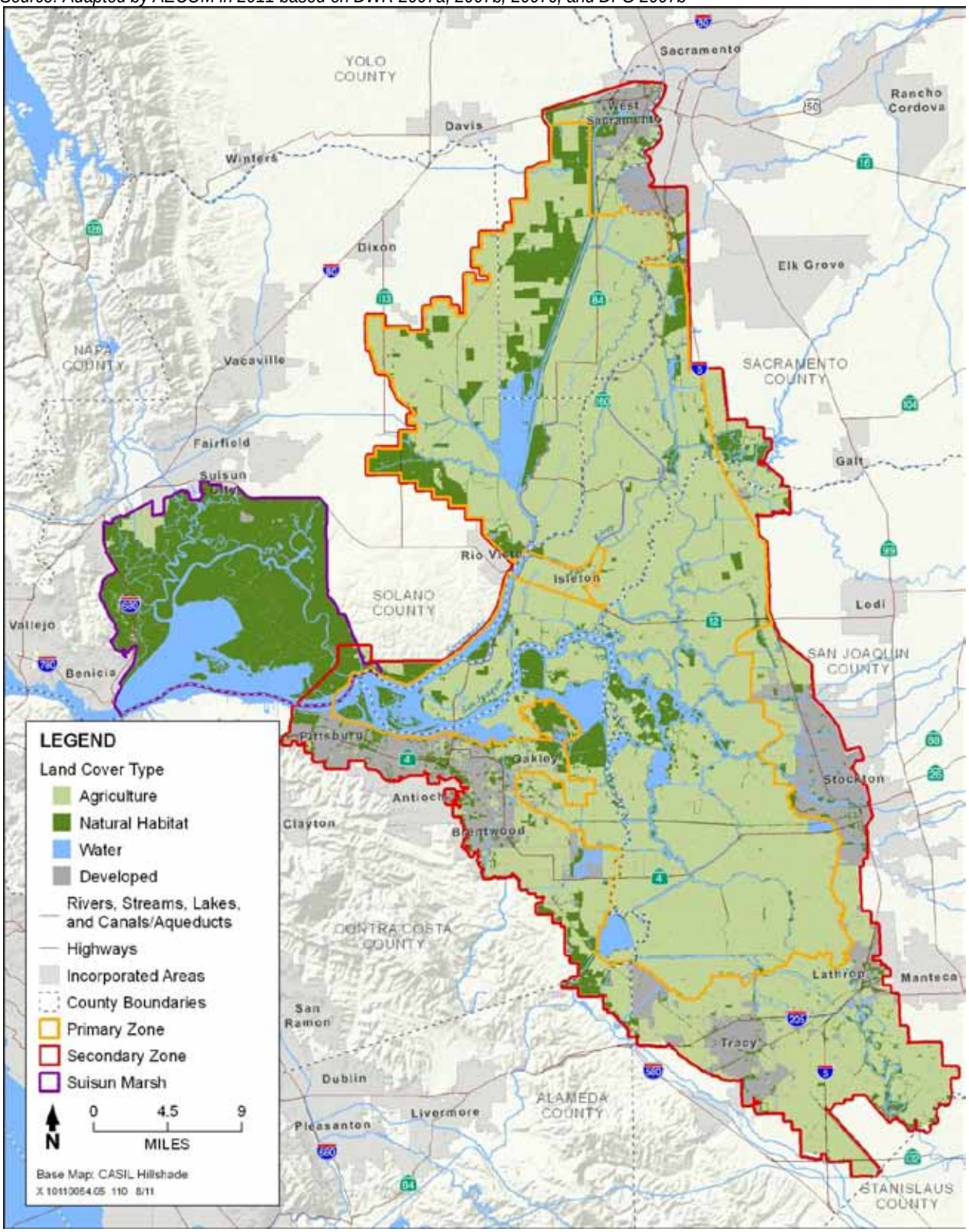
6.3.1 Major Sources of Information

Information for this section was compiled from existing published documents, including city and county general plans, land management plans and EIRs for State parks or other managed lands (e.g., *Yolo Bypass Wildlife Area Land Management Plan*), and similar reports. Data for the local and regional setting were compiled from publically available data sets published by State and federal agencies, such as the California Department of Finance, California Department of Conservation, and DWR.

Additional sources of information are listed in the references section.

Figure 6-7
Future Land Uses in the Delta Watershed and Areas Outside the Delta That Use Delta Water
Source: California Resources Agency 2004

Figure 6-8
Existing Land Cover in the Delta and Suisun Marsh
Source: Adapted by AECOM in 2011 based on DWR 2007a, 2007b, 2007c, and DFG 2007b



6.3.2 Delta and Suisun Marsh

The following discussion describes major population centers, existing land cover, incorporated and unincorporated communities, and patterns of property ownership in the Delta and Suisun Marsh. Where appropriate, it distinguishes between existing uses in the Primary Zone of the Delta and those in the Secondary Zone of the Delta and the Suisun Marsh.

The Delta and Suisun Marsh are located in six counties. The percentage of land in each of the counties is as follows:

- Sacramento County: 14 percent
- Yolo County: 11 percent
- Solano County: 23 percent
- San Joaquin County: 38 percent
- Contra Costa County: 13 percent
- Alameda County: 1 percent

Because only 1 percent of the land in the Delta and Suisun Marsh is located in Alameda County, and this area contains no cities or communities and is designated for agricultural or public use (see Figure 6-1), development patterns in Alameda County are not described further in this section.

Seventeen incorporated cities are located in the Delta and Suisun Marsh: Sacramento, Isleton, Elk Grove, West Sacramento, Rio Vista, Fairfield, Benicia, Suisun City, Pittsburg, Antioch, Oakley, Brentwood, Stockton, Lathrop, Manteca, and Tracy, and Lodi.

6.3.2.1 Existing Land Cover

Table 6-3 and Figure 6-8 identify these four major categories of land cover in the Delta and Suisun Marsh. The following discussion describes uses that are commonly associated with agricultural, natural habitat, and developed cover types

Table 6-3
Acreage for Existing Land Cover in the Delta and Suisun Marsh

	Delta									
	Primary Zone		Secondary Zone		Total		Suisun Marsh		Delta and Suisun Marsh Total	
Category	Acres	Percent	Acres	Percent	Acres	Percent	Acres	Percent	Acres	Percent
Agriculture	353,790	72	123,810	50	477,600	65	2,760	3	480,240	57
Natural habitat	72,420	15	39,100	16	111,520	15	76,040	71	184,630	22
Developed	7,090	1	72,970	30	80,060	11	1,980	2	81,940	10
Water	56,360	12	10,290	4	66,650	9	25,820	24	91,330	11
Total*	489,660	100	246,170	100	735,830	100	106,600	100	838,130	100

Source: Adapted by AECOM in 2011 based on DWR 2007a, 2007b, 2007c; DFG 2007b

* Because of inherent rounding and mapping overlaps and discrepancies, the totals shown do not equal the actual total area for the Delta and Suisun Marsh (discrepancy is less than 0.2 percent).

6.3.2.1.1 Agricultural Lands

Delta agricultural uses include farmlands that support a variety of crops, including grains, fruits, field crops, nuts, seeds, alfalfa, and vegetables. Other agricultural uses include dairies, livestock grazing, agricultural industrial uses, agricultural commercial uses, and farm-based tourism (e.g., hunting, fishing, wildlife study, educational experiences, festivals, tours, wine-tasting rooms, inns, and “pick-your-own”

operations). Agricultural uses in Suisun Marsh are mainly grazing lands with limited farmlands that support a much smaller variety of crops and agricultural uses. Agricultural resources in the Delta and Suisun Marsh are described in more detail in Section 7, Agriculture and Forestry Resources.

6.3.2.1.2 Natural Habitats

Natural habitats include alkaline seasonal wetlands, grasslands, inland dune scrub, managed wetlands, tidal and nontidal marshes, riparian forests and woodlands, riparian areas occupied by invasive species, riparian scrub, and vernal pool complexes.

6.3.2.1.3 Developed Lands

Developed lands include residential, commercial, industrial, public uses (e.g., utilities, transportation facilities and levees), recreation and open space (e.g., golf courses) and other lands (e.g., cemeteries and parking lots) in incorporated and unincorporated areas; typical uses found in these developed areas are described below. Residential, commercial, and industrial development occurs in several incorporated and unincorporated communities in the Delta and Suisun Marsh. In recent years, areas within and adjacent to the Secondary Zone of the Delta and adjacent to the Suisun Marsh have undergone rapid urbanization associated with population growth in the Bay Area and Central Valley regions of California. This growth has resulted in the conversion of undeveloped lands (primarily agricultural land) to residential, commercial, and industrial uses.

Residential

Most residential areas in the Primary Zone are within unincorporated communities. Residential areas in the Primary Zone that are outside of established communities are generally located along roads or intersections on rural low-density lots that are associated with agricultural uses. Residential areas within cities include single-family residential uses, such as detached residences and mobile homes, and multifamily residential uses, such as duplexes, townhomes, condominiums, and apartments; and mixed-use communities.

Commercial

Commercial uses generally include neighborhood, community, and regional shopping centers and business and professional offices. Commercial uses are primarily located in the incorporated cities and unincorporated communities in the Delta and at the periphery of the Suisun Marsh.

Industrial

Industrial uses include manufacturing, warehouses, processing and packing plants, corporation yards, and other uses that may be characterized by noise or other conditions that require spatial separation from residential and public uses. Lands classified in the Delta as industrial are located primarily in or adjacent to the incorporated cities, with the exception of Freeport, Walnut Grove, and unincorporated islands in Stockton; these uses are often adjacent to transportation corridors. There are no lands in the Suisun Marsh with industrial uses; however, the cities of Fairfield and Benicia have industrial uses designated on lands adjacent to the Suisun Marsh boundary.

Utilities

Numerous utility corridors are located in the Delta to provide electricity, natural gas, fuel, and water to users within and outside of the Delta. More than 600 miles of electric transmission lines (115 to 500 kilovolts) and more than 60 electric substations lie within the Delta boundaries.

Approximately 240 operating gas wells are located in the larger Delta–Suisun Marsh area. The most productive gas field in the state (the Rio Vista gas field) is partially located in the Delta. This gas field produced more than 12 billion cubic feet of natural gas in 2010 (DOC 2011). More than 400 miles of natural gas pipelines are located in the Delta to connect local gas fields and regional pipelines. A major natural gas pipeline is located in the eastern portion of Suisun Marsh (Reclamation et al. 2010, p. 7.3-3 and Figure 7.3-1). Pacific Gas and Electric Company's underground natural gas storage area is located under McDonald Island and through its pipeline system provides up to one-third of the peak natural gas supply for its service area in Northern and central California.

Fuel pipelines carry gasoline and aviation fuel across the Delta from Bay Area refineries to depots in Sacramento and Stockton for distribution to Northern California and Nevada. They are located in the western and eastern portions of the Suisun Marsh (Reclamation et al. 2010, Figure 7.3-1).

The Mokelumne Aqueduct consists of three pipelines and crosses five Delta islands/tracts (Orwood Tract, Woodward Island, Jones Tract, Roberts Island, and Sargent-Barnhart Tract).

Land-based Transportation

Transportation systems traversing around and through the Delta and Suisun Marsh include several railroads and freeways, State highways, and county roads. Four interstate freeways (I-5, Interstate 80 [I-80], I-205, and Interstate 680 [I-680]) are major transportation and trucking routes located within 10 miles of the Delta boundary. The six major State highways in the Delta (SR-4, SR-12, SR-84, SR-113, SR-132, and SR-160) are typically two lanes and are used for local access, regional trucking, recreational access, and commuting.

The interstate and State highways and local roads provide access to most islands in the Delta. More than 50 bridges, including approximately 30 drawbridges, span the navigable channels in the Delta. Several islands can be accessed only by boats. Auto ferries provide public access across Cache Slough to and from Ryer Island and across Steamboat Slough. Three other ferries, which are not open to the public, provide access across Little Connection Slough, across Middle River to Woodward Island, and from Jersey Island to Webb Tract and Bradford Island (California Delta Chambers and Visitors Bureau 2011).

The Burlington Northern Santa Fe Railway, Union Pacific Railroad, Central California Traction Company, and Sierra Northern Railway operate rail lines in the Delta and Suisun Marsh. These railroads carry regional rail traffic between the Bay Area and the Central Valley through the Delta and Suisun Marsh, as described in Section 19, Transportation, Traffic, and Circulation.

Ports

Two major ports are located in the Secondary Zone: the ports of West Sacramento and Stockton (see Section 19, Transportation, Traffic, and Circulation). The U.S. Army Corps of Engineers (USACE) is conducting feasibility evaluations and associated environmental documentation for both ports to improve the deep water shipping channels that serve the ports. The Port of Stockton has obtained grants from multiple sources to enhance security, improve dock facilities, and attract new businesses to the area.

Airports

Public and privately owned airports are located in or near the Delta and Suisun Marsh throughout the five counties, as summarized below and described in Section 19, Transportation, Traffic, and Circulation (also see Table 6-2):

- Sacramento County: Sacramento International Airport, Franklin Field, and Sacramento Executive Airport
- Yolo County: Borges-Clarksburg Airfield

- Solano County: Rio Vista Municipal Airport
- Contra Costa County: Byron Airport and Buchanan Field Airport
- San Joaquin County: Kingdon Airpark, Lodi Airpark, Stockton Metropolitan Airport, New Jerusalem Airport, and Tracy Municipal Airport

Levees

The Delta and Suisun Marsh include more than 200 islands or tracts protected by 1,335 miles of levees, as described in Section 5, Delta Flood Risk.

Open Space

Various types of open space areas are scattered throughout the Delta and Suisun Marsh, including national wildlife refuges and wildlife areas, trail systems, SRAs, preserves, and ecological reserves. In addition, regional open space is provided by areas adjacent to the Sacramento River Deep Water Ship Channel; Sacramento, San Joaquin, and North Fork Mokelumne rivers; the Suisun Marsh; and numerous sloughs surrounding the Delta islands. Additional details on these open space uses are provided in the Property Ownership section below and in Section 4, Biological Resources.

Recreation

The Delta and Suisun Marsh provide extensive opportunities for water- and land-oriented recreation. Navigational waterways in the Delta and Suisun Marsh area are available for public access and make up most of the recreational opportunities. However, most of the land in the Delta is privately owned, which reduces the availability of land-based recreation. These facilities include marinas, yacht clubs, campgrounds, hunting clubs, and fishing areas, as described in Section 18, Recreation.

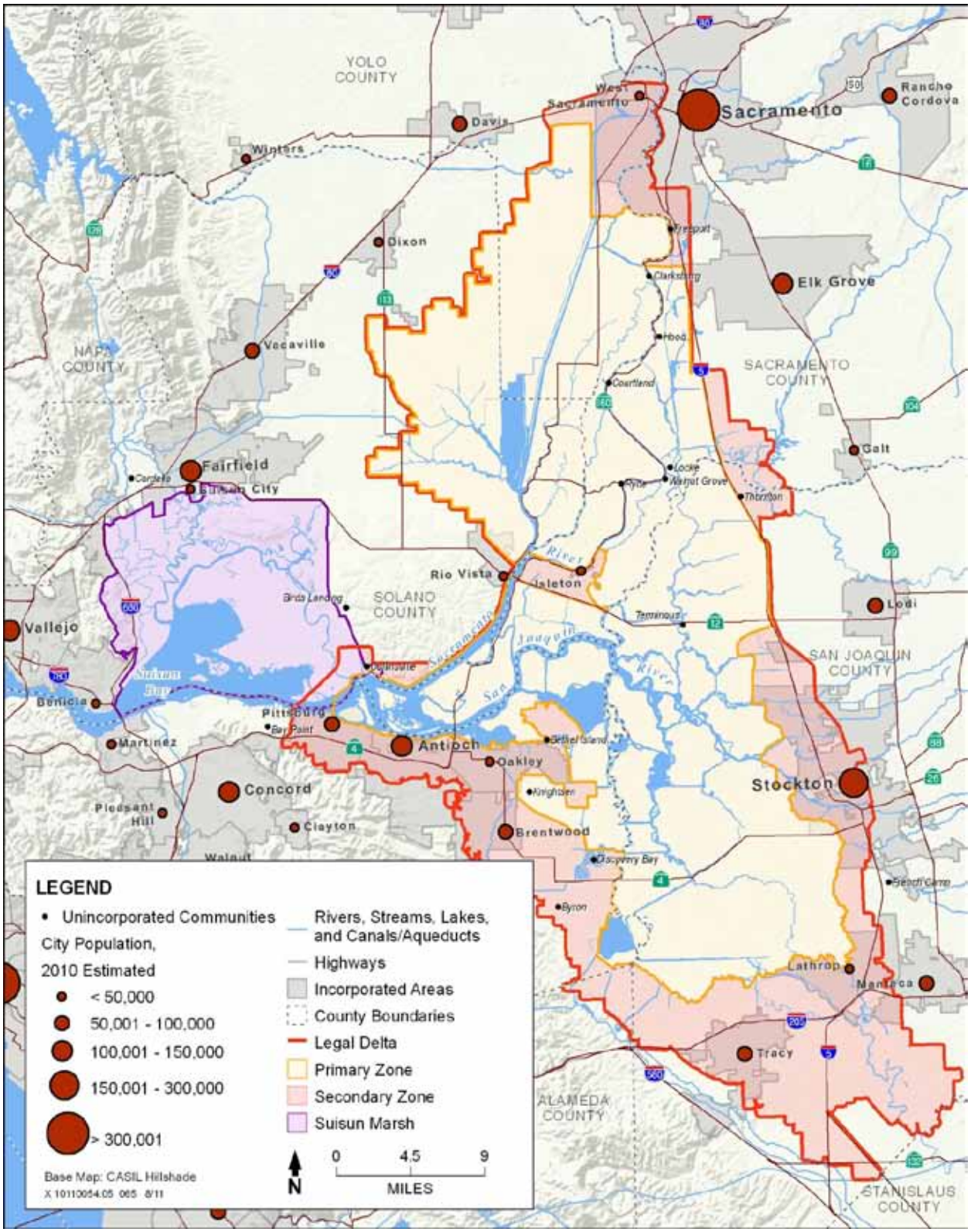
6.3.2.2 Communities and Culture

The following discussion characterizes the incorporated cities and unincorporated communities in the Delta and Suisun Marsh. Numerous communities are located in these areas, with populations ranging from hundreds of thousands (e.g., Stockton) to a few hundred (e.g., Walnut Grove). Although the development pattern is described by general category, each of these communities has a unique character based on its history, landscape, heritage, and economy.

6.3.2.2.1 Major Population Centers

The highest concentrations of people in the Delta and Suisun Marsh are in the urban centers of Sacramento, Lodi, Elk Grove, Stockton, Tracy, Manteca, Fairfield, Antioch, and Pittsburg (Figure 6-9). Population in the Primary Zone is centered in several rural unincorporated communities, including Clarksburg, Courtland, Locke, and Walnut Grove. As a result of passage of the Delta Protection Act of 1992 and implementation of the Delta Protection Commission's *Land Use and Resource Management Plan for the Primary Zone of the Delta* in 1995, expansion of urban development in these communities is generally not allowed unless proponents can demonstrate that implementing their projects would not result in loss of wetlands or riparian habitat, would not degrade water quality, would not interfere with migratory birds or public access, would not harm agricultural operations, and would not degrade levees or expose the public to increased flood hazards. For these reasons, population growth since 1995 has been relatively low in these communities.

Figure 6-9
Major Population Centers in the Delta and Suisun Marsh
Source: DOF 2010; compiled by AECOM in 2011



6.3.2.2.2 Incorporated Communities in the Delta and Suisun Marsh

Most of the incorporated cities in the Delta are located in the Secondary Zone, as summarized in Table 6-1. Portions of the cities of Antioch, Oakley, Pittsburg, Rio Vista, and Stockton, are located in the Primary Zone. Portions of the cities of Fairfield, Benicia, and Suisun City are located in Suisun Marsh. The incorporated acreage of these communities is also listed in Table 6-1.

Sacramento County

City of Sacramento

Located at the confluence of the Sacramento and American rivers near the northern edge of the Delta, Sacramento is the largest community in or adjacent to the Delta. The city includes over 6,000 acres of land in the Delta composed of well-established neighborhoods (e.g., Pocket/Greenhaven and south Sacramento); commercial and retail centers; and public uses, such as schools and parks. Delta Shores, a large planned development east of I-5, would expand the city's residential and commercial uses south of the current urban development line. Sacramento Executive Airport is located adjacent to the Delta boundary. Although the Delta boundary skirts the western edge of the city, development and culture in the city are more focused on urban activities.

City of Isleton

Located along the east shore of the Sacramento River, Isleton is a small city in the center of the Delta, wholly within the Secondary Zone. The area was permanently settled in the 1860s, initially by farmers and laborers who built levees as part of the reclamation of Delta lands. The city has many preserved 19th-century-era storefronts along its main street, some of which show distinct Chinese influences. A Japanese section of the main street was developed after Japanese people began immigrating to Isleton. The Chinese and Japanese areas of the main street are registered today as a national historic district. The Filipino community also has been an important part of Isleton. The Isleton wharf was a frequent stop for water traffic from San Francisco to Sacramento in the early 1900s. The city is considering expanding south to Oxbow Marina, into agricultural fields.

City of Elk Grove

Located adjacent to the southern city of Sacramento boundary, Elk Grove is a suburban community that incorporated in 2000. Land uses in the city include a full spectrum of residential (predominantly planned developments), commercial, industrial, open space and recreation, and public uses. The city can be accessed from I-5 and SR-99. A small portion of the city is located in the Secondary Zone and includes a cross section of residential uses along I-5.

Yolo County

City of West Sacramento

Located in southeast Yolo County, in the northern portion of the Delta, West Sacramento includes over 12,000 acres of land in the Delta. It is bounded by the Sacramento River to the north and east and the Sacramento River Deep Water Ship Channel and Yolo Bypass to the west. Land uses in the Delta include a variety of residential, commercial, and industrial uses, many which are focused on the use of the Sacramento River, including marinas, boat ramps, harbors, and walking and bike trails. The Port of West Sacramento is located at the northern boundary of the Delta and is surrounded by warehouses, storage yards, and industrial plants (including rice processing). Residential land uses along Jefferson Boulevard have increased along with the city's population over the last three decades.

Solano County

City of Rio Vista

Located on the west bank of the Sacramento River in eastern Solano County, Rio Vista experienced stable growth throughout the 20th century. Most of the residential and commercial land uses in the city are located outside of the Delta. However, about 1,000 incorporated acres of Rio Vista are located in the Primary Zone and include open space, the Rio Vista Municipal Airport, the Northwest Wastewater Treatment Plant, and several industrial uses. The areas in the Primary Zone were annexed to the City of Rio Vista following adoption of the Delta Protection Act of 1992 (including designation of the Primary Zone boundaries). The Delta Protection Act identified two exemptions for incorporation of lands within the Primary Zone: if the areas were to be annexed before implementation of the Delta Protection Commission in 1993 or if an EIR were certified before 1993 for a project that was to be annexed. Rio Vista annexed the area for the airport and the Northwest Wastewater Treatment Plant under these exemptions. Some additional incorporated acres of Rio Vista are located in the Secondary Zone.

Rio Vista is located along SR-12, with the historic downtown oriented toward the Sacramento River. Remote islands and networks of waterways provide access to natural areas near Rio Vista, and the bridge connecting Rio Vista to Brannan Island across the Sacramento River is an identifiable Delta landmark and gateway for the community. The city's economy has been dominated by agriculture-related and transportation-related businesses, natural gas production, housing, and related businesses for the past century. Delta recreation-based facilities and businesses located in Rio Vista near the Sacramento River include marinas, harbors, fishing piers, bait and tackle shops, and boat launches. A U.S. Coast Guard station is also located along the river in this area.

City of Fairfield

Located in southern Solano County, Fairfield was incorporated in 1903. After the construction of Travis Air Force Base in 1943, housing and commercial services grew rapidly. Today, Fairfield supports a population of more than 100,000 residents, many of whom commute to the Bay Area for work. Fairfield can be accessed via I-80 and the Capital Corridor Amtrak line. The city includes incorporated acreage in the Suisun Marsh, most of which consists of agricultural land uses adjacent to Suisun Marsh.

City of Benicia

Located at the edge of Suisun Bay, adjacent to the Carquinez Strait, Benicia was the designated State capital in 1853 (Sacramento was designated the capital in 1854). Access to the city is provided by SR-680, SR-780, and SR-4 via the Benicia-Martinez Bridge. The city features several waterfront access points, including a full-service marina, several municipal parks, and the Benicia SRA. The city includes 61 acres of marshland at the edge of Suisun Bay on the eastern side of the Benicia-Martinez Bridge in the Suisun Marsh.

City of Suisun City

Located at the edge of the Suisun Marsh in Solano County, Suisun City covers approximately 4 square miles and has a population of 28,962 residents. A very small amount of land in Suisun City is located at the fringe of the Suisun Marsh. Suisun City's character is in many ways defined by its connection to the Suisun Marsh. One of Suisun City's major features is the waterfront promenade and historic Waterfront District, which provides recreation and entertainment access to the Suisun Marsh.

San Joaquin County

City of Stockton

Stockton is the second largest city bordering the Delta, located in central San Joaquin County between I-5, SR-4, and SR-99. It includes incorporated acres in both the Primary and Secondary Zones. Existing land uses include residential, commercial, industrial, and open space and recreation uses. Industrial land use focused on goods distribution has become a major component of Stockton's economy because the city capitalizes on port, rail, and highway distribution avenues. The San Joaquin River Deep Water Ship Channel was created in 1933 to connect the Port of Stockton to the San Francisco Bay and made the city accessible to ocean-going vessels. The port is now the easternmost deep water port located on the west coast. Large amounts of Central Valley agricultural products pass through the Port of Stockton, which is the third largest landholder port in California. Stockton has strong commercial ties to the Delta and places a strong recreational policy focus on the Delta. Stockton's recreational opportunities are largely tied to the Delta, such as trails along waterways, several marinas, and public boat launches.

City of Tracy

Tracy is situated at the junction of three major transportation corridors linking the San Joaquin Valley, the San Francisco Bay Area, and Southern California: I-580, I-205, and I-5. Most of the incorporated area is located in the Secondary Zone of the Delta. Land uses include a full spectrum of residential, commercial, industrial, open space and recreation, and public uses. Tracy has experienced a high degree of urbanization over the last 20 years and is more urbanized than many other Delta communities. San Francisco Bay Area residents increasingly began to buy homes in Tracy in the 1980s as Bay Area housing prices soared, and much of the growth in Tracy over the last few decades has been fueled by an influx of residents who commute to work in the Bay Area via the Altamont Commuter Express (i.e., ACE train).

City of Lathrop

Lathrop is largely removed from Delta waterways. Most of the city is located in the Delta Secondary Zone and has a full spectrum of residential, commercial, industrial, open space and recreation, and public uses. In general, access to the San Joaquin River, located roughly 2 miles west of the city, is limited because most marinas are private. Lathrop experienced population growth in the 1970s and 1980s and, since 2000, has begun to expand west of I-5 with new residential uses.

City of Manteca

Manteca is located in southern San Joaquin County adjacent to Lathrop. Over 10 percent of city's incorporated land is located in the Secondary Zone of the Delta. This area is largely separated from the rest of the city by SR-120 and includes primarily agriculture with some rural large-lot and suburban residential development on the fringe. Manteca's economy, like that of many cities in the Central Valley, was historically based on agriculture but has grown with new population and suburban residential and commercial developments. Manteca is connected to the Bay Area via SR-120 and to points north and south via SR-99 and I-5.

City of Lodi

Lodi is located in northern San Joaquin County east of I-5 and along SR-99. It is located outside of the Secondary Zone at least 3 miles east of the Delta; however, the city owns and operates the White Slough Water Pollution Control Facility. This wastewater treatment facility was constructed in 1966 along I-5 west of Lodi in the Secondary Zone. The city owns 1,019 acres adjacent to the treatment facility and leases more than 900 acres to local farmers for the cultivation and harvesting of feed and fodder crops not intended for human consumption (City of Lodi 2011). Land uses between the Delta and the city limits are primarily agricultural. The city promotes its vineyards and wine-making industry by advertising itself as the "Zinfandel Capital of the World."

Contra Costa County

City of Oakley

Oakley is located in northeastern Contra Costa County and is wholly located in the Delta. Land uses in the city include residential, commercial, industrial, open space and recreation, and public. Agriculture has historically been a key component of Oakley's economy; however, the city has undergone dramatic growth in recent decades. Although the older downtown area has smaller homes on small lots, development over the last few decades has been largely suburban in character. Suburbanization and agricultural uses are competing for land as the community continues to grow at the edge of the Delta.

City of Antioch

Antioch is located in northeast Contra Costa County along the shore of the San Joaquin River. Its incorporated area includes acreage in the Primary Zone (including the Dow Wetlands Preserve) and acreage in the Secondary Zone. Antioch is served by SR-4 and SR-160. SR-160 links Antioch with Delta communities to the north via the Antioch Bridge. The waterfront area has played a major role in the physical and economic development of Antioch. Farming and agricultural distribution uses have also played an important role in the community. Commercial fishing and canning was once a strong and important industry but is no longer. A new Marsh Landing power plant by Mirant Corporation will be constructed on Wilbur Avenue, on land occupied by five unused oil tanks next to the Contra Costa Power Plant. Other major industrial uses located along the waterfront include a concrete manufacturer, landscape supply services, logistics service providers, a recreational vehicle storage facility, and boat clubs and marinas.

City of Pittsburg

Pittsburg is a suburban community located in northeastern Contra Costa County, near the western limits of the Delta, and includes incorporated acreage in the Primary Zone and Secondary Zone. Browns Island Regional Shoreline is located within the city limits and the Primary Zone. Historically, connections to the water played a key role in the development of the community. Near the turn of the 20th century, the community shifted to more industrial activities. In the mid-20th century, Pittsburg became home to several industries, many that continue to operate. In the 1970s and 1980s, while retaining its industrial base, Pittsburg grew as a suburban community for people employed throughout the Bay Area. The Pittsburg waterfront was historically used for fishing and industry. Although no longer a site for commercial fishing, the area remains popular for sport fishing and restaurants. Industrial uses, including the Pittsburg Power Plant, and open space (primarily Suisun Bay wetlands) are the dominant land uses in the waterfront area today.

City of Brentwood

Brentwood is located in far eastern Contra Costa County, south of Oakley, along SR-4. The city includes incorporated acreage in the Secondary Zone, with a full spectrum of residential, commercial, industrial, open space and recreation, and public uses typical of a city this size. Brentwood was long an agriculturally oriented community, but, like many communities located on the margins of the San Francisco Bay Area, it has undergone rapid suburbanization in recent years. Brentwood's population more than doubled between 2000 and 2008. This population growth was accompanied by new suburban development and commercial retail uses, which have been constructed on undeveloped land over the last few decades.

6.3.2.2.3 Unincorporated Communities

Several established unincorporated communities are located in the Primary and Secondary Zones of the Delta and make up a substantial element of the Delta's unique cultural heritage. Clarksburg, Hood, Courtland, Locke, Walnut Grove, Ryde, Terminous, and Knightsen are located in the Primary Zone. Bethel Island, Freeport, Byron, Discovery Bay, Mountain House and portions of Knightsen and Bay Point are located in the Secondary Zone. Collinsville is the only unincorporated community located in the Suisun Marsh. It was once an Italian fishing town but now is mostly a ghost town (California Delta Chambers and Visitors Bureau 2010).

Located south of Sacramento, the communities of Freeport, Clarksburg, Hood, Courtland, Locke, Walnut Grove, and Ryde are all located along SR-160. Each has a rich history, some dating back to the early 1800s. During the Gold Rush, Freeport served as a major shipping center. Construction of a wharf in the late 1800s opened Courtland to easy trade with Sacramento and other Delta towns. During the 1910s and throughout the 1920s, the Sacramento Southern Railroad passed through Freeport and brought economic growth to the area (California Delta Chambers and Visitors Bureau 2010).

Agriculture remains the core of the local economy and the predominant land use in many of these communities. Residential and commercial land uses are relatively limited and tend to be located adjacent to the levees. They consist primarily of single-family homes and commercial storefronts with residential units attached that are relatively dense located in the town centers. Many of these buildings have historical significance. Freeport, Walnut Grove, and Ryde have marinas or private boat launches and some commercial uses associated with recreation activities. Clarksburg recently expanded its economic base with the redevelopment of the Old Sugar Mill into a wine tasting and event hall.

Many of the communities along SR-160 had large Chinese and Japanese populations. By 1905, approximately 80 percent of the nearby agricultural lands were being farmed by Japanese residents of Walnut Grove. Locke was founded in 1915 after a fire in Walnut Grove destroyed much of the established Japantown and Chinatown. Locke is the largest and most complete example of a rural Chinese-American community in the United States, and it is the last remaining example of this little-known phase in the history of the Chinese in America (National Park Service 1990, p. 19).

Terminous, at the intersection of SR-12, the South Fork of the Mokelumne River, and Little Potato Slough, was established as a small settlement in the 1890s. By the mid-1960s, the community was largely uninhabited but now supports boat storage slips, repair shops, a general store, a restaurant, a bar, a 250-site campground, and a mobile home park (California Delta Chambers and Visitors Bureau 2010). Bethel Island was founded in the 1870s with the creation of levees that transformed the area into an island. Bethel Island is connected to the nearby communities of Oakley and Knightsen by the Bethel Island Road Bridge over Dutch Slough. Marinas and residential units line the perimeter of the island, and sports and recreation stores focusing on water-oriented recreation are common. The island supports a larger residential population compared to the other unincorporated communities in the Delta. The

northern end and interior of the island are used for livestock grazing and farming. Many homes front Delta waterways and have docks for personal boats. The island also supports a variety of cabins, recreational vehicle facilities, overnight boat berthing, camping sites, and a golf course. A new residential subdivision is under construction on the island. This project, known as Delta Coves, would breach an existing levee to connect the subdivision's waterways to Dutch Slough, but it would provide sheet-pile levee protection for the new homes.

Knightsen, in eastern Contra Costa County south of Oakley and Bethel Island, was founded in the late 1800s in conjunction with a rail stop. It has remained a small farming community throughout the years. Agriculture has focused on almonds, walnuts, and sunflower seeds. The community is largely comprised of rural homes and agricultural uses, such as crop fields and horse ranches. Knightsen is bisected by the Burlington Northern Santa Fe railway lines. The center of town supports small retail shops and agricultural businesses.

6.3.2.3 Property Ownership

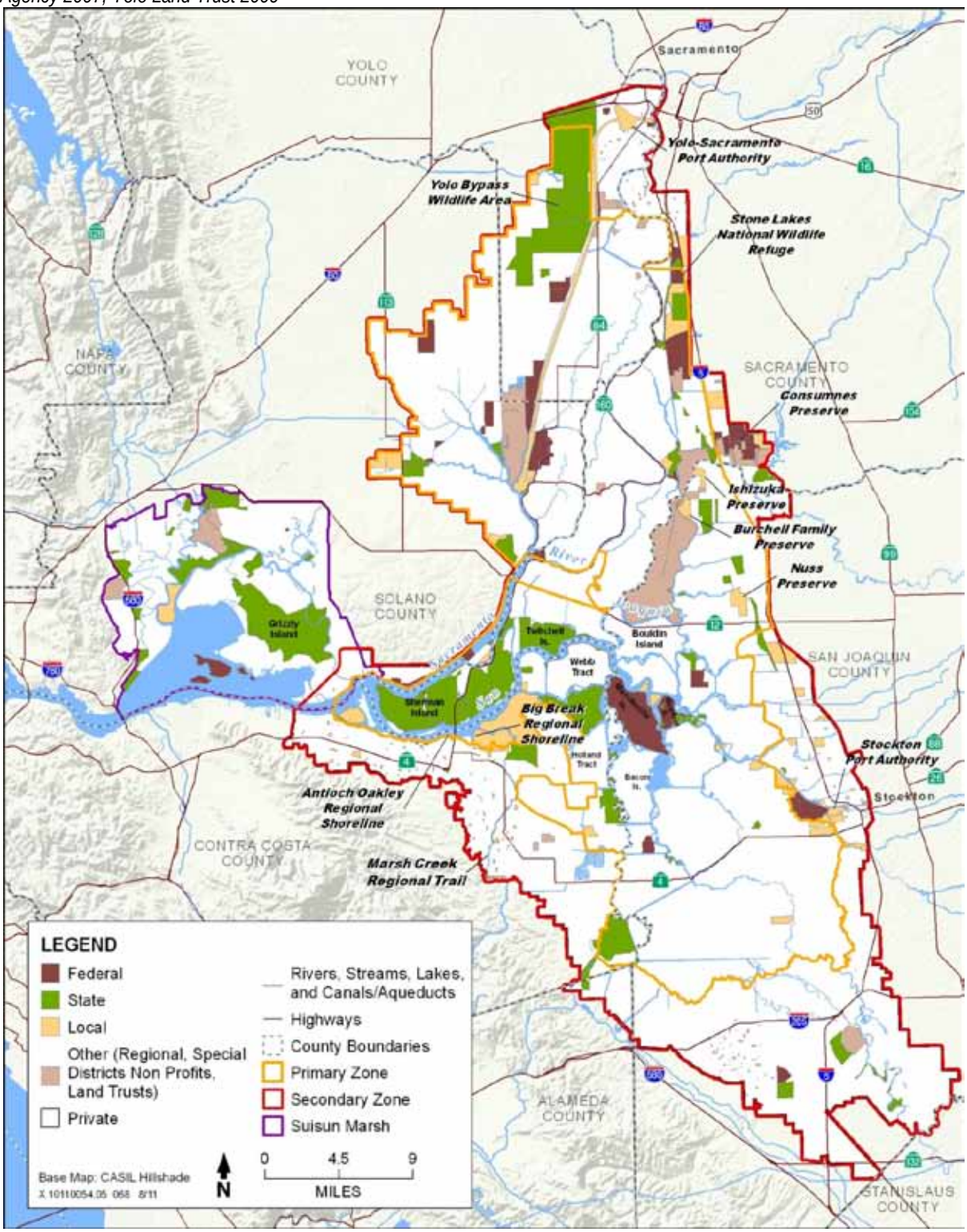
Property ownership in the Delta and Suisun Marsh is a mosaic of holdings by private landowners, cities, counties, regional agencies, joint powers agencies, special districts, port districts, State agencies, federal agencies, nongovernmental entities such as land trusts, conservation organizations, and private institutions. According to available data, approximately 25 percent of land in the Delta and Suisun Marsh is held by government agencies or nongovernmental organizations holding land in the public interest (Figure 6-10). Title to most of this land is held by the government agencies or the nongovernmental organizations in fee, although these entities hold conservation easements covering approximately 9,000 acres. In addition, State sovereign lands (e.g., tidelands, submerged lands, the beds of navigable waterways) are administered by the State Lands Commission or local grantees. The remaining area, approximately 75 percent of the Delta and Suisun Marsh, is privately owned agricultural land or residential, commercial, or industrial property. Figure 6-10 shows lands owned by governmental agencies and nongovernmental organizations.

Ownership provides additional information on how land is used in the Delta and Suisun Marsh. For purposes of this discussion, lands are classified as federal (e.g., Reclamation, U.S. Fish and Wildlife Service [USFWS]); State (e.g., DWR, DFG, State Parks); "local" (cities and counties); "other" (which includes regional agencies, special districts (e.g., Ironhouse Sanitation District), and lands held by nonprofit or nongovernmental organizations in the public interest (e.g., The Nature Conservancy, Solano Land Trust, Trust for Public Lands)); and "private." As shown in Figure 6-10, there are several preserves or parks that are held in partnerships by multiple owners (e.g., Cosumnes River Preserve) and private land.

Several federal agencies hold title to land in the Delta and Suisun Marsh. The U.S. Natural Resources Conservation Service owns 9,837 acres, much of which is used for the Medford Island and Mandeville Island Wetlands Reserve Programs. The U.S. Army and U.S. Department of the Navy own approximately 4,268 acres throughout the Delta and Suisun Marsh. Other agencies, such as USFWS (2,225 acres), USACE (1,599 acres), and BLM (718 acres), own land in fee or easements in trust.

Several State agencies own land in the Delta and Suisun Marsh. The largest holdings are DWR's Twitchell and Sherman islands (13,000 acres) and DFG's Yolo Bypass Wildlife Area (16,770 acres) and Grizzly Island Wildlife Area in the Suisun Marsh (9,153 acres).

Figure 6-10
Public and Private Property Ownership in the Delta and Suisun Marsh
Source: Adapted by AECOM in 2011 based on Brentwood Agricultural Land Trust 2009; California Resources Agency 2007; Central Valley Farmland Trust 2009; DFG 2009; DWR 2007d; GreenInfo Network 2009; SAIC 2009; Solano County Water Agency 2007; Yolo Land Trust 2009



Local parks owned and maintained by cities and counties for recreational use account for 3,650 acres in the Delta and Suisun Marsh. Local governments also own land for municipal purposes, such as water treatment plants and landfills, or in partnership with State agencies and land trusts as parks and nature preserves. The San Joaquin County Council of Governments owns 1,837 acres as a part of its *Multi-Species Habitat Conservation and Open Space Plan*, including Nuss Preserve, Ishizuka Preserve, Burchell Family Trust Preserve, and Wing-Levee Road Preserve. The *East Contra Costa County Habitat Conservation Plan/Natural Communities Conservation Plan* has identified the potential for acquiring 23,800–30,300 acres of land, some of which could be located in the Delta.

Several special districts hold lands in the Delta and Suisun Marsh. Both the Yolo-Sacramento Port District (i.e., Port of West Sacramento) and Stockton Port Authority have large land holdings. Stockton Port Authority owns approximately 5,300 acres that include the port property, Donlon Island, Browns Island, Mandeville Tip, Venice Cut, Tule Island, North Headreach, North and Spud islands, Acker Island, Roberts Island, and Rough and Ready Island. The East Bay Regional Park District owns approximately 2,639 acres of land that includes Big Break Regional Shoreline, Marsh Creek Regional Trail, Antioch/Oakley Regional Shoreline, Browns Island, and Orwood Tract. Lands held by government or nongovernment organizations are used primarily for agriculture, recreation, habitat (e.g., mitigation, banks, wetlands restoration), or conservation (e.g., flyway reserves, other preserves).

Additional properties are controlled by partnerships between government and nongovernment organizations. For example, the Cosumnes River Preserve contains about 46,000 acres, with about 5,376 acres located in the Delta held in fee title or conservation easement by the City of Elk Grove, Sacramento County, DWR, California State Lands Commission, BLM, The Trust for Public Land, and The Nature Conservancy (Cosumnes River Preserve 2011). Stone Lakes National Wildlife Refuge (17,641 acres) is held in fee title by Sacramento County, State Parks, the California Department of Transportation, USFWS, Reclamation District No 1002, and the Sacramento Regional County Sanitation District (USFWS 2007, p. 1). Land trusts such as Yolo Land Trust, Trust for Public Land, Solano Land Trust, The Nature Conservancy, Brentwood Agricultural Land Trust, Archaeological Conservancy, Wildlands Inc., and other private or nonprofit trusts hold land in fee title or in trust through easements.

Nongovernmental organizations and other organizations represent important land holdings in the Delta and Suisun Marsh. For example, the Delta Wetlands Project owns 20,828 acres of land in the Delta. This partnership between Delta Wetlands (a private landowner), Semitropic Water Storage District, and DFG proposes to transform Bouldin Island and Holland Tract into wetland and wildlife habitat and two reservoir islands (Webb Tract and Bacon Island) into new water storage facilities (Delta Wetlands Project 2010).

6.3.3 Delta Watershed

The Delta watershed extends across a broad area encompassing about 28,372,800 acres that covers approximately 27 percent of the land in the state. The patterns of land cover for agriculture, developed areas, natural habitat or open space, and water in the Delta watershed and areas outside the Delta that use Delta water are presented in Figure 6-11. This description of land cover is based on an analysis of satellite imagery verified by field data, and, although similar, is not the same as existing land use. As shown, the urban and built environment covers about 3 percent of the area of the Delta watershed area.

Figure 6-11
Land Cover in the Delta Watershed and Areas Outside the Delta That Use Delta Water
Source: Adapted by AECOM in 2011 based on DFG 2007b; DWR 2007a; 2007b; 2007c

As shown in Figure 6-12, most of the population in incorporated cities in these areas is located in the northern Delta watershed along SR-99 (e.g., Chico, Redding, Yuba City) or along I-80 and the greater Sacramento metropolitan region (e.g., Rocklin, Roseville, Citrus Heights, Folsom, Rancho Cordova). The southern portion of the watershed includes major population centers along I-5 and SR-99 in the Central Valley, such as Merced, Modesto, Turlock, and Madera. For a discussion of population, see Section 16, Population and Housing.

6.3.4 Areas Outside the Delta That Use Delta Water

Areas outside the Delta that receive Delta water occupy about 24,120,900 acres and cover approximately 23 percent of the land in the state. Figure 6-11 shows the patterns of land cover for agriculture, developed areas, natural habitat or open space, and water in the areas outside the Delta that use Delta water. This description of land cover is based on an analysis of satellite imagery verified by field data, and, although similar, is not the same as existing land use. The areas outside the Delta that use Delta water have proportionally less natural habitat or open space and more agriculture and developed areas than areas in the Delta watershed. Urban and built environments account for approximately 11 percent of the areas outside the Delta that use Delta water.

Areas outside the Delta that use Delta water cover the largest population centers in the state, including Los Angeles, San Diego, San Jose, and San Francisco. The Delta provides drinking water to about 23 million people and irrigation water to about 7 million acres of agricultural lands (Executive Order 2-17-06). There are 144 cities with populations greater than 50,000 in this area, which represents 73 percent of the incorporated population in the state and 60 percent of the total state population (DOF 2010). Unlike the Delta watershed, this area does not encompass contiguous lands but instead is a combination of separate regions. The northern portion of this area comprises land in Alameda, Contra Costa, Napa, Sonoma, San Francisco, San Mateo, Santa Cruz, Santa Clara, and Monterey counties. The central portion of this area includes land in Fresno, Tulare, and Kings counties. The southern portion of this area includes land in every county in the state south of San Luis Obispo and Kern counties, with most of the population in Los Angeles, Orange, Riverside, San Bernardino, San Diego, and Santa Barbara counties. For a discussion of population, see Section 16, Population and Housing.

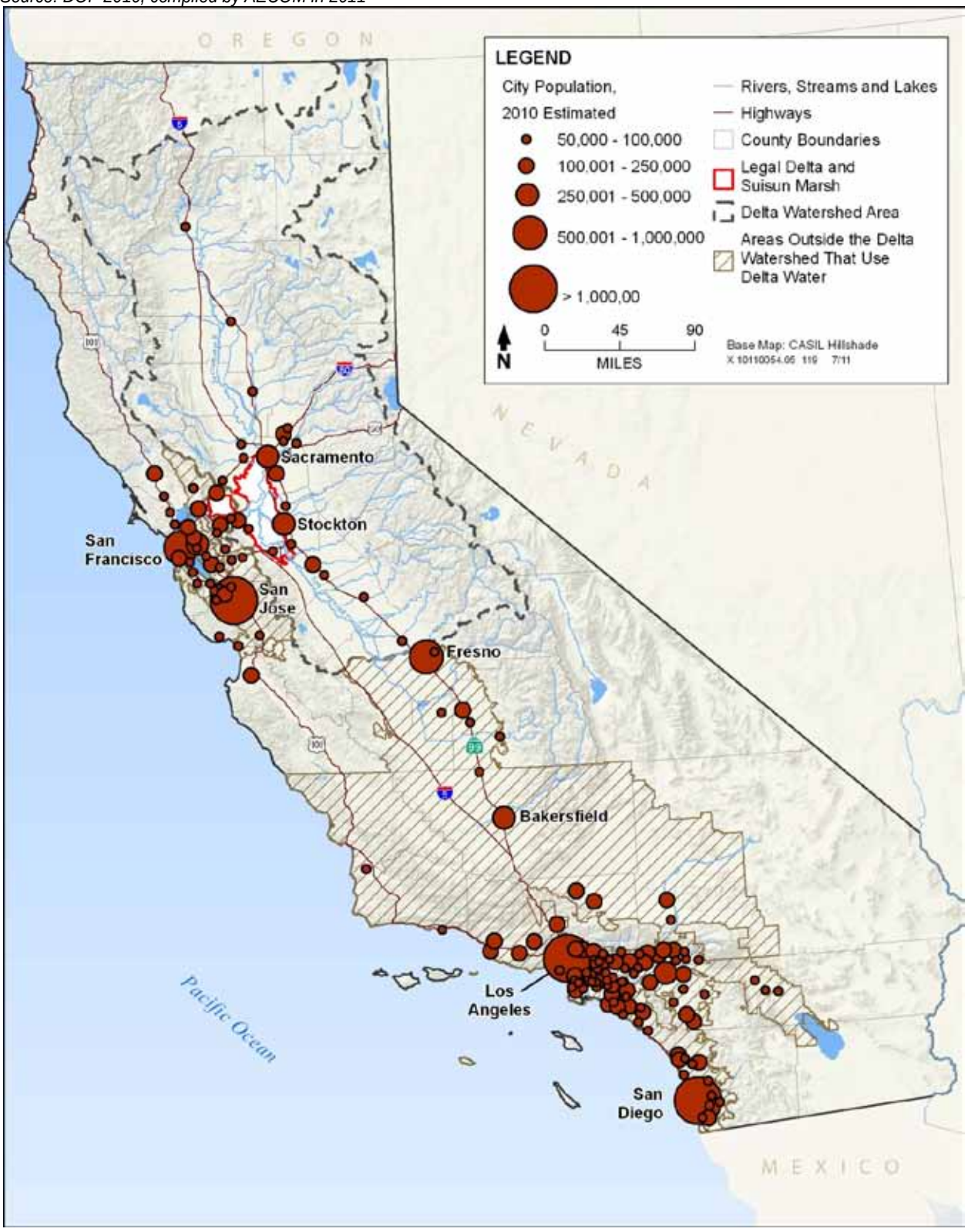
6.4 Impacts Analysis of Project and Alternatives

6.4.1 Assessment Methods

The Proposed Project and alternatives would not directly result in construction or operation of projects or facilities, and therefore would result in no direct land use impacts.

The Delta Plan alternatives could encourage implementation of actions or development of projects, such as facilities or infrastructure, as described in Sections 2A and 2B. Examples of potential actions that could involve land use changes include the construction of water and wastewater treatment plants; conveyance facilities, including pumping plants; surface water or groundwater storage facilities; ecosystem restoration projects; flood control levees; or recreation facilities. Implementation of these types of actions and construction and operation of these types of facilities could result in land use impacts.

Figure 6-12
Major Population Centers in the Delta Watershed and Areas Outside the Delta That Use Delta Water
Source: DOF 2010; compiled by AECOM in 2011



The precise magnitude and extent of project-specific land use-related impacts would depend on the type of action or project being evaluated, its specific location, its total size, and a variety of project- and site specific factors that are undefined at the time of preparation of this program-level EIR. Project-specific impacts would be addressed in project-specific environmental studies conducted by the lead agency at the time the projects are proposed for approval.

Land use impacts from implementation of the alternatives were evaluated in terms of how project components could potentially disrupt or divide existing communities and whether projects would conflict with existing land use plans, policies, or regulations (e.g., general plan land use designations). Because project-level construction details are not available for the project components analyzed, these effects were analyzed for the geographic extent of the Delta and Suisun Marsh, including the six counties in the Delta. For named projects or projects encouraged by the Delta Plan that include project components or facilities in the Delta watershed or areas outside the Delta that use Delta water, the potential for land use impacts was considered based on the types of facilities that could be constructed.

This EIR proposes mitigation measures for land use impacts. The ability of these measures to reduce noise impacts to less-than-significant levels depends on project-specific environmental studies; enforceability of these measures depends on whether or not the project being proposed is a covered action. This is discussed in more detail in Section 6.4.3.6 and in Section 2B, Introduction to Resource Sections.

6.4.2 Thresholds of Significance

Based on Appendix G of the California Environmental Quality Act (CEQA) Guidelines, an impact related to land use is considered significant if the proposed project would do any of the following:

- Physically divide an established community
- Conflict with an applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect

The threshold in Appendix G, subsection X(c), whether the project would conflict with any applicable habitat conservation plan or natural community conservation plan, is analyzed in Section 4, Biological Resources, of this EIR.

For purposes of this impact analyses, the Proposed Project would be considered to have a significant impact related to physically dividing an established community if it would directly or indirectly disrupt the existing development pattern, divide an existing incorporated or unincorporated community, or isolate such a community from other existing development. This could include, for example, implementing an action that would:

- Disrupt or isolate commercial or industrial land uses from communities that rely on the services, products, and employment these uses provide;
- Divide neighborhoods or subdivisions;
- Isolate an existing community from other existing development to which it is culturally or economically connected; or
- Isolate agricultural lands and facilities from communities that provide services and markets to farmers.

The following discussion of environmental impacts is limited to those potential impacts that could result in some level of significant environmental change, as defined by CEQA. As individual projects are proposed, these individual projects will need to be evaluated in site-specific environmental documents prepared by the lead agencies.

6.4.3 Proposed Project

6.4.3.1 Reliable Water Supply

As described in Sections 2A and 2B, the Delta Plan does not direct the construction of specific projects, nor would projects be implemented under the direct authority of the Council. However, the Delta Plan seeks to improve water supply reliability by encouraging various actions that, if taken, could lead to completion, construction, and/or operation of projects that could provide a more reliable water supply. Such projects and their features could include the following:

- Surface water projects (water intakes, treatment and conveyance facilities, reservoirs, and hydroelectric generation)
- Groundwater projects (wells, wellhead treatment, conveyance facilities)
- Ocean desalination projects (water intakes, brine outfalls, treatment and conveyance facilities)
- Recycled wastewater and stormwater projects (treatment and conveyance facilities)
- Water transfers
- Water use efficiency and conservation program implementation

The number and location of all potential projects that would be implemented are not known at this time. Three possible projects, however, are known to some degree and are named in the Delta Plan: the North-of-the-Delta Offstream Storage Investigation (aka Sites Reservoir), Los Vaqueros Reservoir Project (Phase 2), and the Upper San Joaquin River Basin Storage Investigation Plan (aka Temperance Flat Reservoir). DWR Bulletin 118, which is also named in the Delta Plan, presents a list of 10 recommendations for the management of groundwater but does not result in a specific project the construction or operation of which could affect land use; therefore, Bulletin 118 is not evaluated in this section.

6.4.3.1.1 Impact 6-1a: Physical Division of an Established Community

Effects of Project Construction

The Delta Plan encourages projects to improve water supply reliability that would include the construction and operation of surface water and groundwater storage facilities, water intakes, conveyance facilities (canals, pipelines, tunnels, siphons, and pumping plants), groundwater wells, ocean desalination plants, water transfers, and hydroelectric generation. These types of projects could be constructed in the Delta, Delta watershed, and in areas outside the Delta that receive Delta water, although the larger of these types of facilities would likely occur within the Delta and Delta watershed.

In general, construction of these types of water supply infrastructure are more likely to occur on land designated for agriculture or open space, but could be constructed near or within an existing incorporated community or planned residential, commercial or industrial use area. (Refer to Section 7, Agriculture and Forestry Resources, for impacts related to loss of agricultural land.) Temporary effects resulting from the construction of these projects could physically divide an established community by cutting off roadway or bridge access, thereby isolating communities, separating communities from related commercial or industrial services, or disrupting transportation and other connections between agricultural operations and

communities or markets during the construction period. Roadways or bridges access could be temporarily affected if construction activities include trenching in or near roadways, redirection of existing waterways, or construction staging in or near roadways.

Project-level impacts would be addressed in future site-specific environmental analysis conducted at the time such projects are proposed by lead agencies. However, community-division impacts of project construction would be temporary and there is no substantial evidence that this impact would be significant. This conclusion is based on the review of environmental analyses of similar projects and other, pertinent evidence cited in this EIR, and on the inability to identify a reasonably plausible scenario in which a potential significant impact would occur. It is therefore concluded that this impact would likely be less than significant. Future project-specific analyses may develop adequate information to arrive at a different conclusion; however, for purposes of this program-level analysis, there is no available information to indicate that another finding is warranted or supported by substantial evidence.

Effects of Project Operation

Projects encouraged by the Delta Plan could involve constructing and operating storage facilities in the Delta watershed and in areas outside of the Delta that use Delta water. Construction and operation of these facilities (such as those considered under DWR's Surface Water Storage Investigation) could potentially cause a long-term and permanent disruption of the local development pattern. For example, construction of a surface water storage reservoir in the Delta watershed could require closure of existing roadways through the inundated area. Operation of these facilities, or water supply reliability actions that modify operations of the CVP, SWP, or other water systems, could physically divide or disrupt a community or isolate it from other existing communities on a permanent basis through installation of new structures, dredging of lands to be inundated, and relocation of infrastructure and houses.

The number and location of all potential projects that would be implemented are not known at this time. Three possible projects, however, are known to some degree and are named in the Delta Plan: the North of Delta Offstream Storage Investigation (aka Sites Reservoir), Los Vaqueros Reservoir Project (Phase 2), and Upper San Joaquin River Basin Storage Investigation Plan (aka Temperance Flat). Of these named projects, the Los Vaqueros Reservoir Project has undergone project-specific environmental review (Los Vaqueros Reservoir Expansion Environmental Impact Statement/Environmental Impact Report [EIS/EIR]) (Reclamation et al. 2009).

The Los Vaqueros EIS/EIR provides analogous information about the impacts expected from construction of the other projects, which are similar to the Los Vaqueros Project. In addition, the project-specific EIR for another surface storage project (not named in the Delta Plan)—the Calaveras Dam Replacement Project—also provides analogous information (SFPUC 2011).

Although not named in the Delta Plan, based on a review of their project-specific EIRs, the following projects were determined to be illustrative of the types of land use impacts associated with Water Supply Reliability projects: the Davis-Woodland Water Supply Project (City of Davis 2007), which includes a water intake in the Sacramento River, pumping plants, and conveyance and water treatment facilities; the Huntington Beach Seawater Desalination Project (City of Huntington Beach 2005) and the Carlsbad Precise Development Plan and Desalination Plant Project (City of Carlsbad 2005), both of which illustrate some of the likely short-term impacts of constructing ocean desalination plants; the Western Municipal Water District Riverside-Corona Feeder Pipeline Project (WMWD and Reclamation 2011), which includes the installation of a 28-mile-long underground pipeline and groundwater treatment, water storage, and pumping facilities; and the Lower Yuba River Accord (DWR et al. 2007), which addresses water management, including water transfers.

Review of these evaluations provides information helpful to understanding how Delta Plan–encouraged projects, for which there are no project-specific details or associated reviews, might affect land use. The EIRs and EISs for projects exhibiting representative characteristics and similar types of impacts were reviewed to identify potential land use impacts that may be associated with the construction and operation of surface water storage and water supply projects.

These analyses found either no impacts related to the dividing of existing communities or less than significant impacts, because proposed improvements either were located outside of existing community areas, located underground or were located in existing utility corridors. Project-level impacts would be addressed in future site-specific environmental analysis conducted at the time such projects are proposed by lead agencies. However, because of the potential for the isolation of agricultural lands from communities that provide services and markets to farmers, especially in connection with projects different from those examined in the EIRs discussed above, potential impacts are considered significant.

Conclusion

Overall, based on the potential effects of project construction and project operation discussed above, this impact is considered **significant**.

6.4.3.1.2 Impact 6-2a: Conflict of Constructed Facilities with an Applicable Land Use Plan, Policy, Regulation, or Restriction on Land That Was Adopted for the Purpose of Avoiding or Mitigating an Environmental Impact

Effects of Project Construction

Construction would be a temporary activity rather than a permanent change in land use, and would therefore not conflict with land use plans and zoning ordinances.

Effects of Project Operation

The Delta Plan encourages projects that would include the construction and operation of surface water and groundwater storage facilities, water intakes, conveyance facilities (canals, pipelines, tunnels, siphons, and pumping plants), groundwater wells, water transfers, and hydroelectric generation. As described above (Impact 6-1a, Section 6.4.3.1.1) these types of projects could be constructed in the Delta, Delta watershed, and in areas outside the Delta that receive Delta water, although the larger of these types of facilities would likely occur within the Delta and Delta watershed.

Operation of any of these facilities could potentially conflict with land use plans, policies, regulations, or restrictions adopted for the purpose of avoiding or mitigating environmental impacts if water supply or infrastructure activities similar to those discussed above are proposed in locations where they are not currently allowed based on the applicable land use plan or policies or regulations (e.g., zoning code). Although governmental entities (including State agencies, regulated utilities, and local districts) are not generally subject to local land use controls, operation of these projects could create land use conflicts if they are incompatible with adjacent uses (e.g., industrial operations in close proximity to residential uses). In addition, State projects that conflict with local plans, policies, or regulation adopted for the purpose of avoiding or mitigating an environmental effect could create a significant impact if such projects are not consistent with those local plans (for example, locating projects on land designated in the general plan and zoning for agriculture).

Analyses of projects exhibiting representative characteristics and similar types of impacts found that the impacts related to conflict with land use plans were less than significant, generally because proposed facilities or improvements were consistent with local land use designations.

Based on these examples, it is likely that conflicts with local plans caused by projects encouraged by the Delta Plan would have less-than-significant impacts The details of many of the aspects of these projects, however, are not currently known, and it is possible that significant and unavoidable impacts resulting from conflict with plans could occur for other types of projects in different settings than the projects cited above for which EIRs were prepared. For example, new water supply facilities could be constructed on lands designated for exclusive agricultural use in Yolo or San Joaquin counties, conflicting with these local land use controls and resulting in a loss of agricultural land. Project-level impacts would be addressed in future site-specific environmental analysis conducted at the time such projects are considered by lead agencies. However, because of the potential for projects to cause conflicts with local land use plans, this potential impact would be significant.

Conclusion

Overall, based on the potential effects of project construction and project operation discussed above, this impact is considered **significant**.

6.4.3.2 Delta Ecosystem Restoration

As described in Sections 2A and 2B, the Delta Plan does not direct the construction of specific projects, nor would projects be implemented under the direct authority of the Council. However, the Delta Plan seeks to improve the Delta ecosystem by encouraging various actions and projects that, if taken, could lead to completion, construction, and/or operation of projects that could improve the Delta ecosystem.

Features of such projects and actions that could be implemented as part of efforts to restore the Delta ecosystem include the following:

- Floodplain restoration
- Riparian restoration
- Tidal marsh restoration
- Ecosystem stressor management (e.g., continuation of ongoing programs managing pesticide runoff, water quality, water flows)
- Invasive species management (including removal of invasive vegetation)

The number and location of all potential projects that would be implemented are not known at this time. The following restoration areas, projects, and programs, however, are known to various degrees and are named in the Delta Plan:

- Cache Slough Complex (includes Prospect Island Restoration Project)
- Cosumnes River-Mokelumne River Confluence: North Delta Flood Control and Ecosystem Restoration Project
- Lower San Joaquin River Bypass Proposal
- Suisun Marsh Habitat Management, Preservation, and Restoration Plan (includes Hill Slough Restoration Project)
- Yolo Bypass
- Water Quality Control Plan Update for the San Francisco Bay/Sacramento–San Joaquin Delta Estuary (water flow objectives update)
- Delta Conservancy Strategic Plan

- Variance of the USACE's Vegetation Policy
- DFG's Stage Two Actions for Nonnative Invasive Species included in the Ecosystem Restoration Plan for the Sacramento-San Joaquin Bay Delta

Of these, the North Delta Flood Control and Ecosystem Restoration Project (North Delta Flood Control and Ecosystem Restoration Project EIR) (DWR 2010) and the Suisun Marsh project (Suisun Marsh Habitat Management, Preservation, and Restoration Plan Draft EIS/EIR (Reclamation et al. 2010) have undergone project-specific environmental review.

The Proposed Project encourages the State Water Resources Control Board (SWRCB) to update the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary and develop, implement, and enforce updated flow requirements for the Delta and high-priority tributaries in the Delta watershed that are necessary to achieve the coequal goals. As described in Section 2A, Proposed Project and Alternatives, these actions likely would result in a more natural flow regime in the Delta and Delta tributaries, and reduced export of water from the Delta. Water users in the areas outside the Delta that use Delta water would likely respond to reduced supplies by constructing facilities to improve water supply reliability and improve water quality. The land use impacts associated with these actions would be the same as those described above in Section 6.4.3.1 (Reliable Water Supply), and below in Section 6.4.3.3 (Water Quality Improvement).

The Delta Conservancy Strategic Plan is anticipated to provide a framework that would facilitate ecosystem restoration in the Delta. The general impacts associated with the ecosystem restoration that could result from that planning process are described below in Sections 6.4.3.2.1 and 6.4.3.2.2.

The impacts associated with obtaining a variance to the USACE Vegetation Policy are described under in Section 6.4.3.4 (Flood Risk Reduction), below.

DFG's Stage Two Actions for Nonnative Invasive Species (DFG 2011) identifies six actions for preventing the establishment of additional nonnative invasive species and reduce their economic and ecological impacts. These actions focus on monitoring, study, coordination, and encouragement of the continuation of these actions would not represent a physical change compared to existing conditions.

6.4.3.2.1 Impact 6-1b: Physical Division of an Established Community

Effects of Project Construction

Projects encouraged by the Delta Plan would include the construction of ecosystem restoration areas, including those described in Section 6.4.3.2. Actions could include restoration or creation of habitats such as tidal marsh in areas such as Cache Slough and Suisun Marsh. Ecosystem restoration actions that connect and reactivate floodplains in areas such as the Yolo Bypass, Cosumnes-Mokelumne River confluence, and reaches of the San Joaquin River located upstream and downstream of the lower San Joaquin River floodplain.

Construction of ecosystem restoration areas could occur in the Delta, Delta watershed, or areas located outside of the Delta that use Delta water. In general, construction of ecosystem restoration projects is more likely to occur on land designated for agriculture or open space but could occur near or within an existing incorporated community or planned residential, commercial, or industrial use area. (Refer to Section 7, Agriculture and Forestry Resources, for impacts related to loss of agricultural land.) These projects could physically divide or disrupt a community or isolate it from other existing development on a temporary basis (e.g., construction during agricultural harvest time).

Community-division impacts of project construction would be temporary, and there is no substantial evidence that this impact would be significant. This conclusion is based on the review of environmental analyses of similar projects and other, pertinent evidence cited in this EIR, and on the inability to identify a reasonably plausible scenario in which a potential significant impact would occur. It is therefore concluded that this impact would likely be less than significant. Future project-specific analyses may develop adequate information to arrive at a different conclusion; however, for purposes of this program-level analysis, there is no available information to indicate that another finding is warranted or supported by substantial evidence.

Effects of Project Operations

Long term operation of ecosystem projects has the potential to permanently isolate communities rural communities from urban services especially if restoration projects occur near an urban edge or at the boundary of the Secondary Zone where there is more potential to divide or disrupt a community through breaching of existing levees, removal or rerouting of roadways, dredging of lands to be inundated, and relocation of infrastructure and houses.

The Delta Plan encourages implementation of several ecosystem restoration projects, including the Cosumnes River-Mokelumne River Confluence: North Delta Flood Control and Ecosystem Restoration Project, Suisun Marsh Habitat Management, Preservation, and Restoration Plan, Cache Slough Complex Project, Yolo Bypass Project, and the Lower San Joaquin River Bypass Proposal. An example impact to land use that could occur with operation of habitat restoration areas would consist of saturating soils of adjacent farmland as a result of reintroducing tidal flows to a restoration area. The saturation of adjacent farmland could render the continued agricultural land use infeasible.

Project-level impacts would be addressed in future site-specific environmental analysis conducted at the time such projects are considered by lead agencies. However, because of the potential that projects located near Delta communities could isolate agricultural lands from nearby communities that provide services and markets to local farmers, such as by the temporary or permanent disruption of transportation routes between the agricultural and residential/commercial portions of Delta communities, this potential impact is considered significant.

Conclusion

Overall, based on the potential effects of project construction and project operation discussed above, this impact is considered **significant**.

6.4.3.2.2 Impact 6-2b: Conflict of Constructed Facilities with an Applicable Land Use Plan, Policy, Regulation, or Restriction on Land That Was Adopted for the Purpose of Avoiding or Mitigating an Environmental Impact

Effects of Project Construction

Construction would be a temporary activity rather than a permanent change in land use, and would therefore not conflict with land use plans and zoning ordinances.

Effects of Project Operation

Long-term operation of ecosystem restoration projects, including those described in Section 6.4.3.2, could potentially conflict with land use plans, policies, regulations or land use restrictions adopted for the purposes of avoiding or mitigating environmental impacts if restored areas conflict with existing development or if operation of these projects is not compatible with the land use designations established by local general or specific plans. For example, Yolo and San Joaquin counties have exclusive

agricultural designations in which ecosystem restoration is not a permitted use, and so ecosystem restoration projects could conflict with local land use plans in these designations.

The Delta Plan encourages implementation of several ecosystem restoration projects, including the Cosumnes River-Mokelumne River Confluence: North Delta Flood Control and Ecosystem Restoration Project, Suisun Marsh Habitat Management, Preservation, and Restoration Plan, Cache Slough Complex Project, Yolo Bypass Project, and the Lower San Joaquin River Bypass Proposal. It is not known at this time what specific activities would occur that could affect land use. Two of the named projects have undergone project-level environmental reviews. These projects are the Suisun Marsh Habitat Management, Preservation, and Restoration Plan (a project encouraged by the Delta Plan) and North Delta Flood Control and Ecosystem Restoration Project.

Documents reviewed for potential impacts included the draft and final EIRs for the North Delta Flood Control and Ecosystem Restoration Project (DWR 2010), which analyze proposed flood management and ecosystem restoration projects in the Delta, and the Suisun Marsh Habitat Management, Preservation, and Restoration Plan (Reclamation et al. 2010), which addressed ecosystem restoration in the Suisun Marsh. These documents found that the land use impacts associated with these facilities had no impact, or were less than significant because the proposed improvements or restoration areas were compatible with local land use plans and policies.

Based on these examples, it is likely that the land use impacts of future projects encouraged by the Delta Plan could be mitigated to a less-than-significant level for projects located similarly to those analyzed in the North Delta and Suisun Marsh EIRs, by implementing mitigation measures such as those identified in Section 6.4.3.6.2. Project-level impacts would be addressed in future site-specific environmental analysis conducted at the time such projects are considered by lead agencies. However, projects implementing the Delta Plan could conflict with land use plans. For example, new ecosystem restoration projects could be constructed on lands designated for exclusive agricultural use in Yolo or San Joaquin counties, conflicting with these local land use controls and resulting in a loss of agricultural land. This potential impact of the Proposed Project would be significant.

Conflict of Delta Plan Ecosystem Protection Policy (i.e., ER P3) with Local Land Use Plans

The Proposed Project includes a policy that has the potential to conflict with applicable general plan policy or other local regulations that allow development, based on the potential of the policy to limit development in certain areas of the Delta in order to implement ecosystem restoration projects.

Ecosystem Restoration Policy 3 (ER P3) requires all covered actions, other than habitat restoration, within specific areas of the Delta to demonstrate, in consultation with DFG, that any adverse impacts on the opportunity for habitat restoration would be avoided or mitigated within the Delta. This policy would be applied to covered actions that would result in construction and plans such as new or amended local or regional land use plans. The areas to which this policy applies are shown in Figure 2-1 and are based on the types of potential ecosystem habitat that could occur based on land elevations, as described in Conservation Strategy for Restoration of the Sacramento-San Joaquin Delta Ecological Management Zone and the Sacramento and San Joaquin Valley Regions (DFG 2011).[2]

ER P3 would not necessarily prevent land use changes. However, this restriction may limit the types of land uses that could be implemented in certain areas of the Delta. For example, a covered action that would result in construction of agricultural-related facilities or infrastructure (e.g., warehouse for storing produce), even if it is in compliance with local regulation, could interfere with the possibility of future

[2] This policy would not apply within the following areas, as described in Section 2: Incorporated cities and their spheres of influence; within the Clarksburg growth boundary; within the Contra Costa County ULL; and 2ithin the Mountain House General Plan community boundary.

ecosystem restoration if it is located within the restoration opportunity areas designated in Figure 2-1. If this interference could not be mitigated, then the covered action would conflict with the Delta Plan and could not be approved. Because the effects of ER P3 depend on the specific circumstances of a proposed project that could be allowed under a county general plan, it cannot be determined with certainty whether an actual conflict with county general plans would arise from implementation of the Proposed Project.

The land uses currently allowed for the areas that could be affected by ER P3 are shown in Figure 6-13. Most of this area is designated as agricultural, parks and recreation, natural preserve, public, and water. These existing land use designations do not support major residential subdivisions, commercial or institutional developments, or industrial facilities. The remaining areas include residential areas outside of Tracy; the existing Legacy Towns of Hood, Courtland, and Walnut Grove; the existing town of Thornton; commercial areas primarily in Thornton and Terminous; and industrial areas (primarily in Blythe, Cochrane, Thornton, Walnut Grove, Vorden, Collinsville, and Montezuma). These areas are designated in county general plans to accommodate future growth, as summarized in Table 6-4. The affected areas occupy less than 1 percent of the approximately 704,000 acres in the Delta outside of the incorporated areas, associated spheres of influence, the Clarksburg growth boundary, the Contra Costa County ULL, and the Mountain House General Plan community boundary. This impact would be less than significant for the Delta as a region.

Conclusion

Overall, based on the potential effects of project construction or project operation and potential conflicts with local plans discussed above, this impact is considered **significant**.

6.4.3.3 Water Quality Improvement

As described in Sections 2A and 2B, the Delta Plan does not direct the construction of specific projects, nor would projects be implemented under the direct authority of the Council. However, the Delta Plan seeks to improve water quality by encouraging various actions and projects that, if taken, could lead to completion, construction, and/or operation of projects that could improve water quality.

Features of such actions and projects that could be implemented as part of efforts to improve water quality include the following:

- Water treatment plants
- Conveyance facilities (pipelines, pumping plants)
- Wastewater treatment and recycle facilities
- Municipal stormwater treatment facilities
- Agricultural runoff treatment (eliminate, capture and treat/reuse)
- Wellhead treatment facilities
- Wells (withdrawal, recharge, and monitoring)

The number and location of all potential actions and projects that would be implemented are not known at this time. Various projects, however, are known to some degree and are named in the Delta Plan:

- Central Valley Drinking Water Policy
- Central Valley Salinity Alternatives for Long-Term Sustainability (CV-SALTS)
- Water Quality Control Plan Update for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (water flow objectives update)
- SWRCB/Central Valley Regional Water Quality Control Board (RWQCB) Strategic Workplan

Figure 6-13
Unincorporated Land Uses in the Delta and Suisun Marsh
Sources: California Resources Agency 2004; City of Tracy 2011a; City of Stockton 2011a; Contra Costa County 2010, 2011; SACOG 2009; Sacramento County 2008; San Joaquin County 2008a, 2008b, 2009a; Solano County 2008a, 2008b; Yolo County 2010

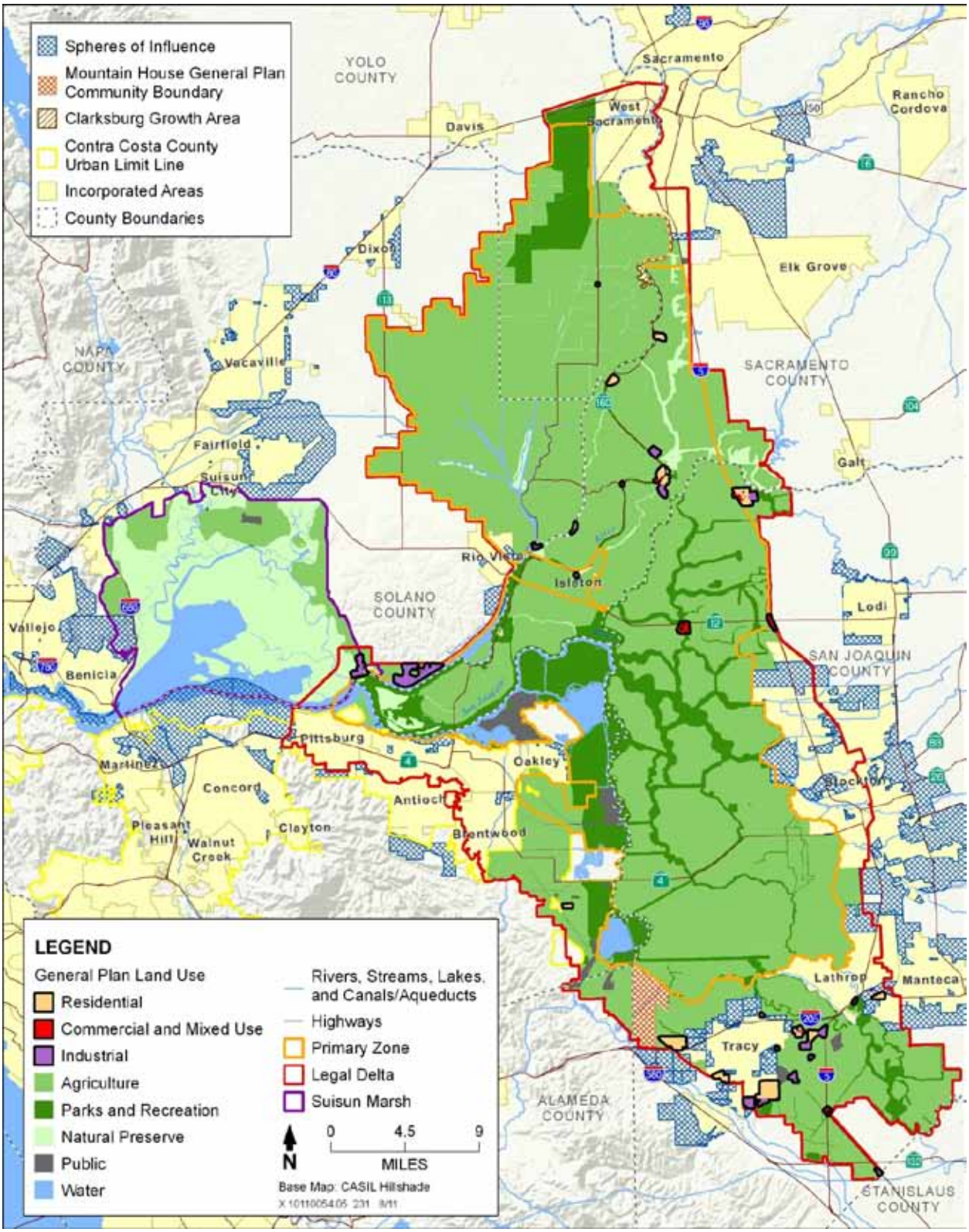


Table 6-4
Lands Affected by Ecosystem Restoration Policy 3 (Impact 6-2b) and Reduced Risk Policy 3 (Impact 6-2d)

Designated Land Use Type	Acres by County					Total Acres
	Contra Costa County	San Joaquin County	Sacramento County[a]	Solano County	Yolo County	
Commercial and Mixed Use	—	319	49	—	3	371
Industrial	—	611	217	1,035	—	1,863
Residential	26	1,763[b]	399	25	—	2,213
Total	26	2,693	665	1,060	3	4,447

Source: Adapted by AECOM in 2011 based on California Resources Agency 2004; City of Tracy 2011a; City of Stockton 2011a; Contra Costa County 2010, 2011, SACOG 2009; Sacramento County 2008; San Joaquin County 2008a, 2008b, 2009a; Solano County 2008a, 2008b; Yolo County 2010.

[a] Includes 399 residential acres, 123 industrial acres, and 44 commercial acres in the Legacy Towns of Courtland, Freeport, Hood, Isleton, Locke, Ryde, and Walnut Grove that would not be required to provide 200-year flood protection.

[b] Includes residential acres in Tracy that would not be required to provide additional 200-year flood protection because area is located at elevations above the floodplain.

- Central Valley Pesticide Total Maximum Daily Load and Basin Plan Amendment for diazinon and chlorpyrifos (regulatory processes, research, and monitoring)
- Central Valley Pesticide Total Maximum Daily Load and Basin Plan Amendment for pyrethroids (regulatory processes, research, and monitoring)
- Total Maximum Daily Load and Basin Plan Amendments for selenium and methylmercury (regulatory processes, research, and monitoring)
- North Bay Aqueduct Alternative Intake Project

6.4.3.3.1 Impact 6-1c: Physical Division of an Established Community

Effects of Project Construction

Water quality improvement projects encouraged by the Delta Plan would include those listed in Section 6.4.3.3, including new and expanded treatment plants and conveyance facilities (pipelines and pumping plants). Actions encouraged by the Proposed Project to improve water quality, including the North Bay Aqueduct Alternative Intake Project and projects that could result from the completion of the Central Valley Drinking Water Policy, could include water treatment plants, wastewater treatment plants, desalination plants, and conveyance facilities. Similarly, the recommendations contained in the Proposed Project for the SWRCB and RWQCBs to develop and adopt objectives for nutrients in the Delta and Delta watershed as well as complete the development of processes that are underway to define allowable maximum loading of constituents to waterways could also result in the construction and operation of these types of facilities.

Construction of water quality improvement facilities could occur in the Delta, Delta watershed, or areas located outside of the Delta that use Delta water. Construction or long-term operation of water quality improvement projects have the potential to physically or isolate communities, especially when they occur near an urban edge or at the boundary of the Secondary Zone.

Community-division impacts of project construction would be temporary, and there is no substantial evidence that this impact would be significant. This conclusion is based on the review of environmental analyses of similar projects and other, pertinent evidence cited in this EIR, and on the inability to identify a reasonably plausible scenario in which a potential significant impact would occur. It is therefore concluded that this impact would likely be less than significant. Future project-specific analyses may develop adequate information to arrive at a different conclusion; however, for purposes of this program-level analysis, there is no available information to indicate that another finding is warranted or supported by substantial evidence.

Effects of Project Operations

Long-term operation of water quality improvement facilities have the potential to permanently isolate rural communities from urban services especially if projects occur near an urban edge or at the boundary of the Secondary Zone where there is more potential to divide or disrupt a community through installation of new structures, and relocation of infrastructure and houses.

It is unclear at this time how implementation of the Proposed Project would result in specific activities, including the location, number, methods, and duration of construction activities or facilities that would be operated. The Delta Plan encourages implementation of the North Bay Aqueduct Alternative Intake Project. The new alternative intake structure would be located on the Sacramento River in a rural area of Sacramento or Yolo County and the new pipeline would extend from the new intake structure to the existing North Bay Regional Water Treatment Plant. The diversion/intake structure and water conveyance pipeline are similar to the Davis-Woodland Water Supply Project.

Documents reviewed for potential impacts include EIRs and EISs for the Davis-Woodland Water Supply Project (City of Davis 2007), which includes a water intake in the Sacramento River, pumping plants, conveyance, and water treatment facilities; and the Grasslands Bypass Project (Reclamation and San Luis & Delta-Mendota Water Authority 2008). These documents found that these facilities either had no land use impact, or the impacts were less than significant, generally because improvements did not affect established community areas.

Project-level impacts would be addressed in future site-specific environmental analysis conducted at the time such projects are proposed by lead agencies. While there is uncertainty about where these facilities would be located, it is likely that some could be constructed and operated in or near established communities. Linear features associated with these facilities, such as conveyance facilities, could extend through portions of an established community and result in a physical division. Therefore, this potential impact is considered significant.

Conclusion

Overall, based on the potential effects of project construction and project operation discussed above, this impact is considered **significant**.

6.4.3.3.2 Impact 6-2c: Conflict of Constructed Facilities with an Applicable Land Use Plan, Policy, Regulation, or Restriction on Land That Was Adopted for the Purpose of Avoiding or Mitigating an Environmental Impact

Effects of Project Construction

Construction would be a temporary activity rather than a permanent change in land use, and would therefore not conflict with land use plans and zoning ordinances.

Effects of Project Operation

Long term operation of water quality improvement projects, such as water treatment plants, could potentially conflict with land use plans, policies, regulations or land use restrictions adopted for the purposes of avoiding or mitigating environmental impacts if operations of the projects are not compatible with existing development.

It is unclear at this time how implementation of the Proposed Project would result in specific activities, including the location or number of facilities that would be operated. The Delta Plan encourages implementation of the North Bay Aqueduct Alternative Intake Project. The new alternative intake structure would be located on the Sacramento River in a rural area of Sacramento or Yolo County and the new pipeline would extend from the new intake structure to the existing North Bay Regional Water Treatment Plant. The diversion/intake structure and water conveyance pipeline are similar to the Davis-Woodland Water Supply Project.

Documents reviewed for potential impacts included EIRs and EISs for the Davis-Woodland Water Supply Project (City of Davis 2007), which includes a water intake in the Sacramento River, pumping plants, conveyance, and water treatment facilities; the Carlsbad Precise Development Plan and Desalination Plant Project (City of Carlsbad 2005), and the Grasslands Bypass Project (Reclamation and San Luis & Delta-Mendota Water Authority 2008). These documents found that the land use impacts associated with these facilities had no impact or were less than significant, generally because proposed improvements or changes were consistent with land use designations and plans.

Conclusion

Project-level impacts would be addressed in future site-specific environmental analysis conducted at the time such projects are considered by lead agencies. However, projects implementing the Delta Plan could conflict with land use plans. For example, new water treatment facilities could be constructed on lands designated for exclusive agricultural use in Yolo or San Joaquin counties, conflicting with these local land use controls and resulting in a loss of agricultural land. Overall, this potential impact would be **significant**.

6.4.3.4 Flood Risk Reduction

As described in Sections 2A and 2B, the Delta Plan does not direct the construction of specific projects, nor would projects be implemented under the direct authority of the Council. However, the Delta Plan seeks to reduce the risk of floods in the Delta by encouraging various actions that, if taken, could lead to completion, construction, and/or operation of projects that could reduce flood risks in the Delta. Such projects and their features could include the following:

- Setback levees
- Floodplain expansion
- Levee maintenance
- Levee modification
- Dredging
- Stockpiling of rock for flood emergencies
- Subsidence reversal
- Reservoir reoperation

The number and location of all potential projects that would be implemented are not known at this time. One possible project, however, is known to some degree and is named in the Delta Plan: the Sacramento Deep Water Ship Channel and Stockton Deep Water Ship Channel Dredging (the United States Army Corps of Engineer's *Delta Dredged Sediment Long-Term Management Strategy* included in Appendix C, Attachment C-7 of this EIR). The DWR framework is a program, not an activity that would affect land use; therefore, it is not evaluated in this section.

6.4.3.4.1 Impact 6-1d: Physical Division of an Established Community

Effects of Project Construction

Flood risk reduction activities such as construction of setback levees, and restoration or inundation of floodplain areas could have the potential to divide or disrupt communities similar to those described, especially when they occur near an urban edge or at the boundary of the Secondary Zone, similar to the effects described above in Section 6.4.3.1.1. Activities to reduce flood risk or increase channel depths could include dredging in and near the Delta. Dredging is unlikely to physically divide communities because it will occur within waterways and avoid developable land.

Community-division impacts of project construction would be temporary, and there is no substantial evidence that this impact would be significant. This conclusion is based on the review of environmental analyses of similar projects and other, pertinent evidence cited in this EIR, and on the inability to identify a reasonably plausible scenario in which a potential significant impact would occur. It is therefore concluded that this impact would likely be less than significant. Future project-specific analyses may develop adequate information to arrive at a different conclusion; however, for purposes of this program-level analysis, there is no available information to indicate that another finding is warranted or supported by substantial evidence.

Effects of Project Operation

Long term operation of flood risk reduction projects have the potential to permanently isolate developed areas, rural communities, or agricultural areas from urban services especially, if projects occur near an urban edge or at the boundary of the Secondary Zone where there is more potential to divide or disrupt a community through installation of new structures, and relocation of infrastructure and houses.

It is not known at this time what specific flood risk reduction projects would be placed into operation. However, flood control projects that involve setback levees, levee modification, or other structures adjacent to or near Delta communities could have the potential to physically divide those communities or isolate them from other communities, with the potential to create an impact.

Conclusion

Any project-level impacts related to setback levee construction or floodplain inundation would be addressed in future site-specific environmental analysis conducted at the time such projects are considered by lead agencies. However, because of the potential for residents in the vicinity of the flood risk reduction activities to experience the physical division of existing communities, including the potential for division of community centers from their surrounding agricultural areas, overall, this potential impact would be **significant**.

6.4.3.4.2 Impact 6-2d: Conflict of Constructed Facilities with an Applicable Land Use Plan, Policy, Regulation, or Restriction on Land That Was Adopted for the Purpose of Avoiding or Mitigating an Environmental Impact

Effects of Project Construction

Construction would be a temporary activity rather than a permanent change in land use, and would therefore not conflict with land use plans and zoning ordinances.

Effects of Project Operation

Long term operation of flood risk reduction activities could potentially conflict with land use plans, policies, regulations or land use restrictions adopted for the purposes of avoiding or mitigating environmental impacts if operations of the projects are not compatible with existing development.

It is not known at this time what specific flood risk reduction projects would occur. Documents reviewed for potential impacts from flood control projects included the draft and final EIRs for the North Delta Flood Control and Ecosystem Restoration Project (DWR 2010), which analyze proposed flood management and ecosystem restoration projects in the Delta. The EIRs found that the land use impacts associated with these facilities were less than significant, because the proposed improvements were consistent with local land use plans.

Although governmental entities (including State agencies, regulated utilities, and local districts) are not generally subject to local land use controls, operation of these projects could create land use conflicts if they are incompatible with adjacent uses (e.g., industrial operations in close proximity to residential uses). In addition, State projects that conflict with local plans, policies, or regulation adopted for the purpose of avoiding or mitigating an environmental effect could create an impact if such projects are not consistent with those local plans.

Any project-level impacts related to setback levee construction or floodplain inundation would be addressed in future site-specific environmental analysis conducted at the time such projects are considered by lead agencies. However, projects implementing the Delta Plan could conflict with land use plans. For example, new flood control facilities could be constructed on lands designated for exclusive agricultural use in Yolo or San Joaquin counties, conflicting with these local land use controls and resulting in a loss of agricultural land. This potential impact would be significant.

Conflict of Flood Risk Protection Policy (i.e., Reduced Risk Policy 3) with Local Land Use Plans

The Proposed Project includes a policy (Reduced Risk Policy 3) that requires a minimum level of flood protection based on specified levee design criteria currently used throughout the Delta. This policy would not change the minimum level of flood protection on the following lands:

- All lands located at elevations that are not subject to 200-year flood risk (such as the community of Mountain House [San Joaquin County 2009b])
- Land uses for recreation, agricultural, or ecosystem restoration that are periodically inundated
- Agricultural lands
- Subdivision (minor subdivisions of 4 or fewer parcels would be excepted) within Legacy Towns (Freeport, Clarksburg, Hood, Courtland, Locke, Walnut Grove, Ryde, and Isleton)
- Areas within urban areas (defined as an area with a population greater than 10,000) or areas that could become part of urban area or an independent urban area within 10 years (such as areas within the spheres of influence, urban limit lines, and growth boundaries)

All of the incorporated areas within the Delta except Isleton and Rio Vista have populations greater than 10,000. Rio Vista's population in 2010 was approximately 8,374, and studies have projected that the population will exceed 10,000 before 2015 (City of Rio Vista 2011). Urban areas with populations greater than 10,000 currently and urban areas that are projected to have populations greater than 10,000 within the next 10 years must provide 200-year flood protection for new development by 2025. Hence, under current State law, the agencies listed above are currently developing plans and facilities to provide this protection.

Reduced Risk Policy 3 would increase the minimum level of flood protection for subdivision development throughout the remaining portions of the Delta. The level of flood protection would be increased from the existing 100-year flood protection to 200-year flood protection for residential subdivisions of more than four parcels, major commercial or institutional developments, or industrial facilities. The existing allowed land uses for the areas that could be affected by this policy is shown in Figure 6-13. Most of this area is designated as agricultural, parks and recreation, natural preserve, public, and water. These existing land uses do not support residential subdivisions, commercial or institutional developments, or industrial facilities. The remaining areas include residential areas outside of Tracy that are located at elevations above the 200-year flood level (San Joaquin County 2009b); the existing Legacy Towns of Hood, Courtland, and Walnut Grove, which would not be required to provide 200-year flood protection; the existing town of Thornton; commercial areas primarily in Thornton and Terminous; and industrial areas (primarily in Blythe, Cochrane, Thornton, Walnut Grove, Vorden, Collinsville, and Montezuma). These areas are designated in county general plans to accommodate future growth, as summarized in Table 6-4. The affected areas occupy less than 1 percent of the approximately 704,000 acres in the Delta outside of the incorporated areas, associated spheres of influence, the Clarksburg growth boundary, the Contra Costa County ULL, and the Mountain House General Plan community boundary.

This impact would be less than significant because Reduced Risk Policy 3 does not preclude development where provided in local plans.

Conclusion

Overall, based on the potential effects of project construction or project operation and potential conflicts with local plans discussed above, this impact is considered **significant**.

6.4.3.5 Protection and Enhancement of Delta as an Evolving Place

As described in Sections 2A and 2B, the Delta Plan does not direct the construction of specific projects, nor would projects be implemented under the direct authority of the Council. However, the Delta Plan seeks to protect and enhance the Delta as an evolving place by encouraging various actions and projects that, if taken, could lead to completion, construction, and/or operation of associated projects. Features of such actions and could include the following:

- Gateways, bike lanes, parks, trails, and marinas and facilities to support wildlife viewing, angling, and hunting opportunities

- Additional retail and restaurants in legacy towns to support tourism

The number and location of all potential projects that would be implemented are not known at this time. However, four possible projects are known to some degree and are named in the Delta Plan: new State parks at Barker Slough, at Elkhorn Basin, and in the southern Delta and the Economic Sustainability Plan. The Economic Sustainability plan is not an activity that would generate land use impacts; therefore, it is not evaluated in this section.

6.4.3.5.1 Impact 6-1e: Physical Division of an Established Community

Effects of Project Construction

Construction activities for projects identified in Section 6.4.3.5 (Protection and Enhancement of Delta as an Evolving Place) that have the potential to temporarily divide established communities could include trenching in or near roadways, redirection of existing waterways, or construction staging in or near roadways.

Community-division impacts of project construction would be temporary and localized, and there is no substantial evidence that this impact would be significant. This conclusion is based on the review of environmental analyses of similar projects and other, pertinent evidence cited in this EIR, and on the inability to identify a reasonably plausible scenario in which a potential significant impact would occur. It is therefore concluded that this impact would likely be less than significant. Future project-specific analyses may develop adequate information to arrive at a different conclusion; however, for purposes of this program-level analysis, there is no available information to indicate that another finding is warranted or supported by substantial evidence.

Effects of Project Operation

Long term effects of Delta enhancement projects, such as the development of new marinas and fishing access points in the Delta, are unlikely physically divide communities in the Delta, and instead are likely to strengthen the local economy and communities.

Operation of specific Delta as evolving place type projects is not anticipated to physically divide an existing community. Delta enhancement projects, such as the development of new marinas and fishing access points in the Delta would generally increase access, rather than physically divide existing communities. There is thus no substantial evidence that this impact would be significant. This conclusion is based on the review of environmental analyses of similar projects and other, pertinent evidence cited in this EIR, and on the inability to identify a reasonably plausible scenario in which a potential significant impact would occur. It is therefore concluded that this impact would likely be less than significant. Future project-specific analyses may develop adequate information to arrive at a different conclusion; however, for purposes of this program-level analysis, there is no available information to indicate that another finding is warranted or supported by substantial evidence.

Conclusion

Overall, based on the potential effects of project construction and project operation discussed above, this impact is considered **less-than-significant**.

6.4.3.5.2 Impact 6-2e: Conflict of Constructed Facilities with an Applicable Land Use Plan, Policy, Regulation, or Restriction on Land That Was Adopted for the Purpose of Avoiding or Mitigating an Environmental Impact

Effects of Project Construction

Construction would be a temporary activity rather than a permanent change in land use, and would therefore not conflict with land use plans and zoning ordinances.

Effects of Project Operation

Long term effects of Delta enhancement projects, such as the development of new marinas and fishing access points in the Delta, are unlikely to be located in areas where there would be a conflict with local land use regulation. However, these projects could potentially conflict with land use plans, policies, regulations or restrictions adopted for the purposes of avoiding or mitigating environmental impacts. For example, if these facilities were constructed in areas of Yolo or San Joaquin counties that are designated for exclusively agricultural use, these facilities would conflict with these local land use regulations.

It is not known at this time what types or where construction of specific Delta as evolving place type projects that could result in land use conflicts would occur. However, the Delta Plan encourages implementation of the Barker Slough and Elkhorn Basin State Parks. Documents reviewed for potential impacts included EIRs for the Bidwell–Sacramento River State Park Habitat Restoration and Outdoor Recreation Facilities Development Project (The Nature Conservancy and the California Department of Parks and Recreation 2008) and the Draft Programmatic EIR for the San Luis Rey River Park Master Plan (San Diego County Department of Parks and Recreation 2008), which are illustrative of some of the types of impacts associated with park and environmental enhancement projects. These documents found that the land use impacts associated with these facilities were less than significant, either because the proposed uses were generally similar to those present in the nearby area, or because the State park was not subject to local land use regulation.

Project-level impacts would be addressed in future site-specific environmental analysis conducted at the time such projects are considered by lead agencies. However, projects encouraged under the Delta Plan could conflict with land use plans. For example, new recreational facilities could be constructed on lands designated for exclusive agricultural use in Yolo or San Joaquin counties, conflicting with these local land use controls and resulting in a loss of agricultural land. This potential impact would be significant.

Conclusion

Overall, based on the potential effects of project construction and project operation discussed above, this impact is considered **significant**.

6.4.3.6 Mitigation Measures

Any covered action that would have one or more of the significant environmental impacts listed above shall incorporate the following features and/or requirements related to such impacts.

With regard to covered actions implemented under the Delta Plan, these mitigation measures will reduce the impacts of the Proposed Project. Project-level analysis by the agency proposing the covered action will determine whether the measures are sufficient to reduce those impacts to a less-than-significant level. Generally speaking, many of these measures are commonly employed to minimize the severity of an impact and in many cases would reduce impacts to a less-than-significant level, as discussed below in more detail.

With regard to actions taken by other agencies on the basis of Delta Plan recommendations (i.e., activities that are not covered actions), the implementation and enforcement of these measures would be within the responsibility and jurisdiction of public agencies other than the Council. Those agencies can and should adopt these measures as part of their approval of such actions, but the Council does not have the authority to require their adoption. Therefore, significant impacts of noncovered actions could remain **significant and unavoidable**.

How mitigation measures in this EIR relate to covered and noncovered actions is discussed in more detail in Section 2B, Introduction to Resource Sections.

6.4.3.6.1 Mitigation Measure 6-1

The following mitigation measures would reduce the effects of Impact 6-1a through e, Physical Division of an Established Community:

- Minimize physical division of existing established communities or residential areas by designing new facilities and infrastructure to be located underground or with sufficient points of visual and physical access. Examples of methods of minimizing physical division include (but are not limited to):
  - Burying or visually masking new infrastructure or facilities;
  - Restoring disturbed landscapes back to preconstruction conditions;
  - Reestablishing access (e.g., reconnecting roads, rebuilding bridges);
  - Relocating landmark buildings; or
  - Implementing other feasible mitigation to reduce the disturbance to a community's physical composition, visual character, or other features integral to the community's identity.

These mitigation measures are commonly employed on a variety of projects. In many cases, they reduce significant land use impacts to less-than-significant levels. Implementation of these mitigation measures would reduce the significance of land use impacts, minimizing division of existing communities by new facilities through measures such as undergrounding or masking of utilities to reduce disturbance to key community features. Moreover, as discussed above, with regard to actions taken by other agencies on the basis of Delta Plan recommendations (i.e., activities that are not covered actions), the implementation and enforcement of these measures would be within the responsibility and jurisdiction of public agencies other than the Council. For these reasons, impacts related to division of existing communities would remain **significant**.

6.4.3.6.2 Mitigation Measure 6-2

The following mitigation measures would reduce the effects of Impact 6-2a through e, Conflict of Constructed Facilities with an Applicable Land Use Plan, Policy, Regulation, or Restriction on Land That Was Adopted for the Purpose of Avoiding or Mitigating an Environmental Impact:

- Compensate for the loss or reduction in environmental values protected by the subject plan or policy. For example, if the project would result in conversion of agricultural land to a non-agricultural use, potential mitigation actions could include:
  - Recording a deed restriction that ensures permanent conservation and mitigation on other property of equal or greater environmental mitigation value;
  - Creating a buffer or barrier between uses;
  - Redesigning the project or selecting an alternate location that avoids or mitigates the impact; and/or
  - Restoring disturbed land to conditions to provide equal or greater environmental value to the land affected by the covered action.

This mitigation measure will likely reduce the conflict with local plans to a less-than-significant level. In some cases, such mitigation may not be feasible, as when no comparable land is available for protection in mitigation for a project that involves conversion to non-agricultural use. Moreover,, as discussed above, with regard to actions taken by other agencies on the basis of Delta Plan recommendations (i.e., activities that are not covered actions), the implementation and enforcement of these measures would be within the responsibility and jurisdiction of public agencies other than the Council. For these reasons, land use conflict impacts would remain **significant**.

6.4.4 No Project Alternative

As described in Section 2A, Proposed Project and Alternatives, the No Project Alternative is based on the continuation of existing plans and policies and the continued operation of existing facilities into the future and permitted and funded projects. Seven ongoing projects have been identified as part of the No Project Alternative. The list of projects included in the No Project Alternative is presented in Table 2-2.

The significance of land use impacts is associated with the potential for construction or operation of projects to divide existing communities or create conflicts with land use plans. These effects are generally greater in established community areas. With the No Project Alternative, project construction at the seven specific project sites is expected to be completed within the next 2–5 years.

To the extent that the specific projects have the potential to divide communities or conflict with land use plans, these projects could have significant impacts. After construction is completed, construction-related impacts would cease, but conflict or division created by constructed improvements could continue.

With the No Project Alternative, the Delta Plan would not be in place to encourage various other projects to move forward. To the extent that the absence of the Delta Plan prevents those projects from moving forward, there could be fewer construction-related impacts in the near and long term. Because land use impacts are specific to the location of potential project effects on a particular site, the No Project Alternative could result in significant construction or operational land use impacts like those of the Proposed Project.

The No Project Alternative is expected to have fewer land use impacts than the Proposed Project in the near term because there would be less construction and therefore the reduced possibility of causing land use conflict or dividing communities. Therefore, the No Project Alternative would have fewer occurrences of land use impacts when compared to the Proposed Project; however, these occurrences may be **significant** depending on site-specific conditions.

6.4.5 Alternative 1A

Under Alternative 1A, the construction and operation of surface water projects (water intakes, treatment and conveyance facilities, and reservoirs) would be the same as under the Proposed Project. As described in Section 2A, Proposed Project and Alternatives, there would be fewer groundwater projects (wells, wellhead treatment, conveyance facilities), ocean desalination projects, recycled wastewater and stormwater projects (treatment and conveyance facilities), and water transfers compared with the Proposed Project. Water use efficiency and conservation programs also would be reduced relative to the Proposed Project.

Projects to restore the Delta ecosystem would be reduced relative to the Proposed Project, and the implementation of flow objectives that could lead to a more natural flow regime in the Delta would not be accelerated as they would be encouraged to be under the Proposed Project. Ecosystem stressor management activities and invasive species management (including removal of invasive vegetation) would be the same as described for the Proposed Project.

Projects and actions to improve water quality would be the same as under the Proposed Project. Flood risk reduction projects also would be the same as under the Proposed Project, except that there would be less emphasis on levee maintenance and modification for levees that protect agricultural land and more emphasis on levees that protect water supply corridors, which could result in an overall reduction in these activities. Projects to protect and enhance the Delta as an evolving place would be the same as for the Proposed Project.

6.4.5.1.1 Impact 6-1: Physical Division of an Existing Community

The same type of land use impacts related to physical division, disruption, or isolation of existing communities from construction would occur under Alternative 1A as described for the Proposed Project.

Under this alternative, there would be fewer of the projects described in Sections 6.4.3.1 (Reliable Water Supply), 6.4.3.2 (Delta Ecosystem Restoration), and 6.4.3.4 (Flood Risk Reduction). Because fewer water supply reliability, Delta ecosystem, and flood risk reduction projects would occur under this alternative compared to the Proposed Project, there would be a smaller area of potential physical effect and therefore a reduced likelihood of division or isolation of existing communities under Alternative 1A.

Alternative 1A would have the same number and type of projects described for the Proposed Project in Sections 6.4.3.3 (Water Quality Improvement) and 6.4.3.5 (Protection and Enhancement of Delta as an Evolving Place). There would be a similar area of potential physical effect and therefore a similar likelihood of division or isolation of existing communities under Alternative 1A for these topic areas.

Overall, significant impacts related to the physical division of an existing community under Alternative 1A would be **less than** under the Proposed Project.

As compared to existing conditions, the impacts related to the physical division of an existing community under Alternative 1A would be **significant**.

6.4.5.1.2 Impact 6-2: Conflict of Constructed Facilities with an Applicable Land Use Plan, Policy, Regulation, or Restriction on Land That Was Adopted for the Purpose of Avoiding or Mitigating an Environmental Impact

The same type of conflicts with applicable land use plans, policies, regulations, or land use restrictions from construction and operations would occur under Alternative 1A as described for the Proposed Project.

In this alternative, there would be fewer of the projects described in Sections 6.4.3.1 (Reliable Water Supply), 6.4.3.2 (Delta Ecosystem Restoration), and 6.4.3.4 (Flood Risk Reduction). Because fewer water supply reliability, Delta ecosystem, and flood risk reduction projects would occur under this alternative compared to the Proposed Project, there would be a smaller geographic area that would be physically affected that could result in conflicts with other land use plans.

Alternative 1A would have the same number and type of projects described for the Proposed Project in Sections 6.4.3.3 (Water Quality Improvement) and 6.4.3.5 (Protection and Enhancement of Delta as an Evolving Place). There would be a similar area of potential physical effect and therefore similar conflicts with other land use plans for these topic areas.

Overall, significant impacts related to conflicts with applicable land use plans, policies, regulations, or land use restrictions from construction and operations under Alternative 1A would be **less than** under the Proposed Project.

As compared to existing conditions, the impacts related to conflicts with applicable land use plans, policies, regulations, or land use restrictions from construction and operations under Alternative 1A would be **significant**.

6.4.5.1.3 Mitigation Measures

Mitigation measures for Alternative 1A would be the same as those described in Sections 6.4.3.6.1 (Mitigation Measure 6-1) and 6.4.3.6.2 (Mitigation Measure 6-2) for the Proposed Project. Because it is not known whether the mitigation measures listed above would reduce Impacts 6-1and 6-2 to a less-than-significant level for Alternative 1A, these potential impacts are considered **significant and unavoidable**.

6.4.6 Alternative 1B

Under Alternative 1B, the construction and operation of surface water projects (water intakes, treatment and conveyance facilities, and reservoirs) would be the same as under the Proposed Project. As described in Section 2A, Proposed Project and Alternatives, there would be fewer groundwater projects (wells, wellhead treatment, conveyance facilities), recycled wastewater and stormwater projects (treatment and conveyance facilities), and water transfers compared with the Proposed Project. Water use efficiency and conservation programs also would be reduced relative to the Proposed Project. There would be no recommended development of ocean desalination projects.

Projects to restore the Delta ecosystem would be reduced in geographic extent relative to the Proposed Project and would not emphasize restoration of floodplains in the lower San Joaquin River. Implementation of flow objectives would not be accelerated or include public trust considerations. Ecosystem stressor management activities and invasive species management (including removal of invasive vegetation) would be increased relative to the Proposed Project, but a variance to the USACE Levee Vegetation Policy would not be pursued. In addition, Alternative 1B would not require conformance with the habitat types and elevation maps presented in the Conservation Strategy for Restoration of the Sacramento-San Joaquin Delta Ecological Management Zone and the Sacramento and San Joaquin Valley Regions (DFG 2011).

Water quality improvement projects, including water treatment plants, conveyance facilities, and wells and wellhead treatment facilities, would be less emphasized relative to the Proposed Project, and greater emphasis would be placed on the construction and operation of wastewater treatment and recycle facilities and municipal stormwater treatment facilities.

Flood risk reduction would place greater emphasis on levee modification/maintenance and dredging than under the Proposed Project, but there would be no setback levees or subsidence reversal projects. Floodplain expansion projects would be fewer or less extensive, and use of reservoir reoperation would be reduced. Actions to protect and enhance the Delta as an evolving place would be consistent with the Economic Sustainability Plan, but the locations for new parks, as encouraged by the Proposed Project, would not be emphasized.

6.4.6.1.1 Impact 6-1: Physical Division of an Existing Community

The same type of land use impacts related to physical division, disruption, or isolation of existing communities from construction would occur under Alternative 1B as described for the Proposed Project.

This alternative would have fewer water supply reliability projects (as described in Section 6.4.3.1), Delta ecosystem projects (as described in Section 6.4.3.2), and Delta enhancement projects (as described in Section 6.4.3.5). Because this alternative would have fewer of these types of projects compared to the Proposed Project, there would be a smaller geographic area affected by new facilities and uses and therefore a reduced likelihood of division of an existing community.

Although some types of water quality project (as described in Section 6.4.3.3) would be more likely under this alternative, there would be less emphasis on water treatment plants and conveyance facilities, and it is uncertain how these changes would affect the overall footprint, and hence the likelihood of impacts, in comparison to the Proposed Project.

Similarly, although there would be more of some types of Flood Risk Reduction projects (as described in Section 6.4.3.4), Alternative 1B would have fewer setback levees and floodplain expansion projects, and it is uncertain how these changes would affect the overall footprint, and hence the likelihood of impacts, in comparison to the Proposed Project.

Overall, significant impacts related to the physical division of an existing community under Alternative 1B would be **less than** under the Proposed Project.

As compared to existing conditions, the impacts related to the physical division of an existing community under Alternative 1B would be **significant**.

6.4.6.1.2 Impact 6-2: Conflict of Constructed Facilities with an Applicable Land Use Plan, Policy, Regulation, or Restriction on Land That Was Adopted for the Purpose of Avoiding or Mitigating an Environmental Impact

The same type of conflicts with applicable land use plans, policies, regulations, or restrictions from construction and operations would occur under Alternative 1B as described for the Proposed Project.

This alternative would have fewer water supply reliability projects (as described in Section 6.4.3.1), Delta ecosystem restoration projects (as described in Section 6.4.3.2), and Delta enhancement projects (as described in Section 6.4.3.5). Because this alternative would have fewer of these types of projects compared to the Proposed Project, there would be a smaller geographic area affected by new facilities and therefore a reduced likelihood for conflict with land use plans.

Although some types of water quality improvement projects (as described in Section 6.4.3.3) would be more likely under this alternative, there would be less emphasis on water treatment plants and conveyance facilities, and it is uncertain how these changes would affect the overall footprint, and hence the likelihood of impacts, in comparison to the Proposed Project.

Similarly, although there would be more of some types of Flood Risk Reduction projects (as described in Section 6.4.3.4), Alternative 1B would have fewer setback levees and floodplain expansion projects, and it is uncertain how these changes would affect the overall footprint, and hence the likelihood of impacts, in comparison to the Proposed Project.

Overall, significant impacts related to conflicts with applicable land use plans, policies, regulations, or land use restrictions from construction and operations under Alternative 1B would be **less than** under the Proposed Project.

As compared to existing conditions, the impacts related to conflicts with applicable land use plans, policies, regulations, or land use restrictions from construction and operations under Alternative 1B would be **significant**.

6.4.6.1.3 Mitigation Measures

Mitigation measures for Alternative 1B would be the same as those described in Sections 6.4.3.6.1 (Mitigation Measure 6-1) and 6.4.3.6.2 (Mitigation Measure 6-2) for the Proposed Project. Because it is not known whether the mitigation measures listed above would reduce Impacts 6-1and 6-2 to a less-than-significant level for Alternative 1B, these potential impacts are considered **significant and unavoidable**.

6.4.7 Alternative 2

As described in Section 2A, Proposed Project and Alternatives, Alternative 2 would place greater emphasis on groundwater, ocean desalination and recycled water projects, and less emphasis on surface water projects. Greater emphasis also would be placed on water transfers and water use efficiency and conservation programs, but these activities would not be expected to generate any changes in land use. The surface storage reservoirs considered under the DWR Surface Water Storage Investigation would not be encouraged; instead, surface storage in the Tulare Basin would be emphasized.

Ecosystem restoration projects similar to but less extensive than those encouraged by the Proposed Project would be emphasized without the requirement to conform to the Ecosystem Restoration Program habitat types and elevation map, including restrictions on development of areas below sea level, as shown in Figure 6-14 and Table 6-5. Alternative 2 would emphasize the development of flow objectives that take into consideration updated flow criteria that support a more natural flow regime, water rights, and greater protection of public trust resources.

Actions to improve water quality would be similar to or greater than those under the Proposed Project, especially the treatment of wastewater and agricultural runoff. Actions to reduce flood risk under Alternative 2 would emphasize floodplain expansion and reservoir reoperation rather than levee construction and modification. The stockpiling of rock and encouragement of subsidence reversal projects would be the same as under the Proposed Project, as would actions to protect and enhance the Delta as an evolving place.

6.4.7.1.1 Impact 6-1: Physical Division of an Existing Community

The same type of land use impacts related to physical division, disruption, or isolation of existing communities from construction would occur under Alternative 2 as described for the Proposed Project.

This alternative would have less extensive Delta Ecosystem Restoration projects (described in Section 6.4.3.2), resulting in a smaller footprint and therefore a reduced likelihood of dividing an existing community.

Alternative 2 would have more water quality improvement projects (as described in Section 6.4.3.3), resulting in a larger area potentially affected by new facilities and therefore a greater likelihood of dividing an existing community.

Although some types of water supply reliability projects (described in Section 6.4.3.1) would be more likely under this alternative, Alternative 2 would have no major water storage facilities, and it is uncertain how these changes would affect the overall affected-area footprint, and hence the likelihood of impacts, in comparison to the Proposed Project.

Although some types of Flood Risk Reduction projects (described in Section 6.4.3.4), including floodplain expansion projects, would be more likely under Alternative 2, there would be fewer levee improvements compared to the Proposed Project, and it is uncertain how these changes would affect the overall footprint, and hence the likelihood of impacts, in comparison to the Proposed Project

This alternative would have the same number and type of projects described for the Proposed Project in Section 6.4.3.5 (Protection and Enhancement of Delta as an Evolving Place). There would be a similar area of potential physical effect and therefore a similar likelihood of dividing an existing community for this topic area.

Overall, significant impacts related to the physical division of an existing community under Alternative 2 would be the **same as** under the Proposed Project.

Figure 6-14
Unincorporated Land Uses within the Delta and Suisun Marsh in Areas Below Sea Level
Sources: California Resources Agency 2004; City of Stockton 2011a; City of Tracy 2011a; Contra Costa County 2010, 2011; SACOG 2009; Sacramento County 2008; San Joaquin County 2008a, 2008b, 2009a; Solano County 2008a, 2008b; Yolo County 2010; sea level elevation line adapted by AECOM based on DWR 2007e

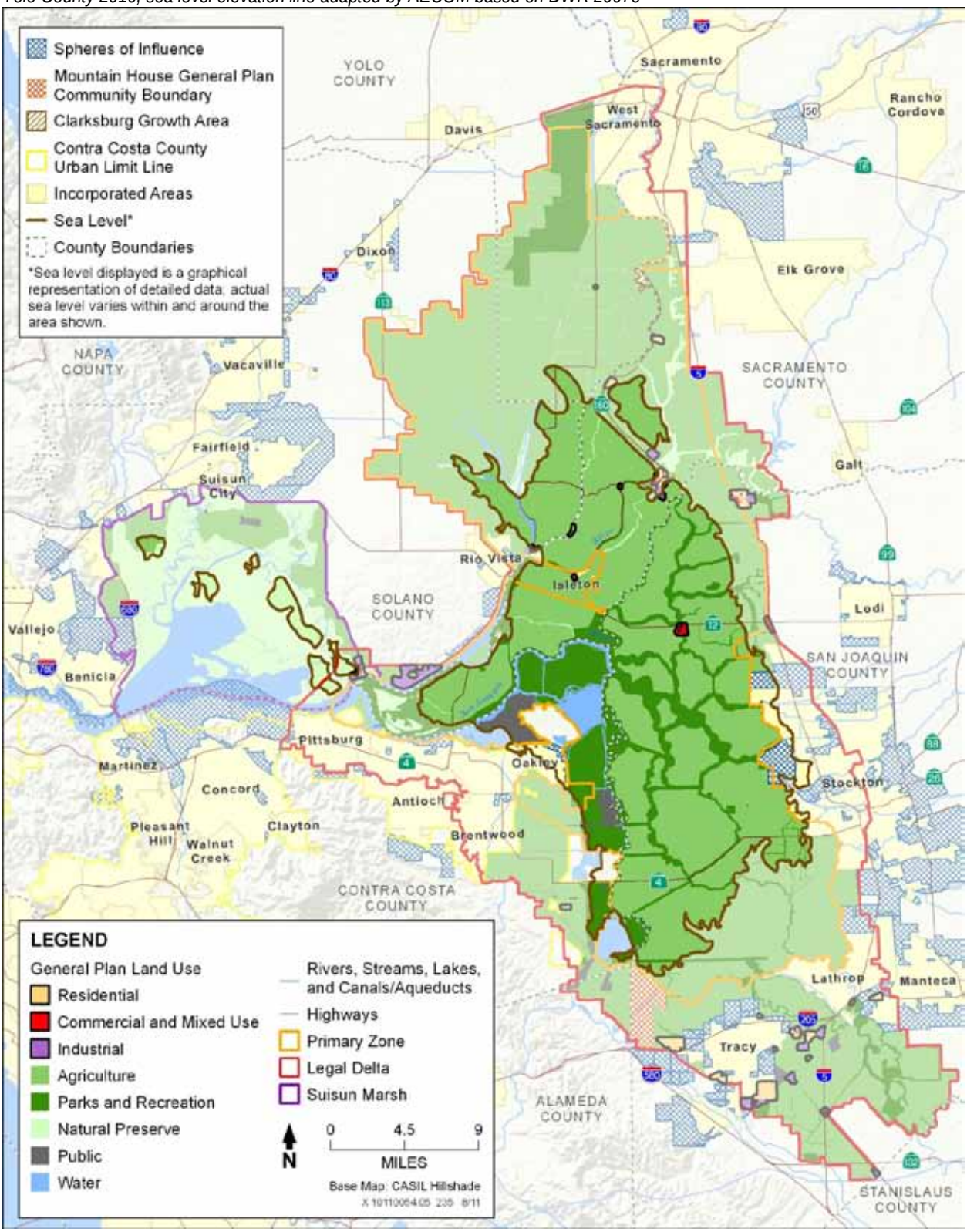


Table 6-5
Lands Located Below Sea Level and Precluded from Development by Ecosystem Restoration and Reduced Risk Policies

Designated Land Use Type	Acres by County					Total Acres
	Contra Costa County	San Joaquin County	Sacramento County	Solano County	Yolo County	
Commercial and Mixed Use	—	127	—	—	—	127
Industrial	—	—	29	33	—	62
Residential	—	6	39	1	—	46
Total	—	135	68	34	—	234

Source: Adapted by AECOM in 2011 based on California Resources Agency 2004; City of Stockton 2011a; City of Tracy 2011a; Contra Costa County 2010, 2011; SACOG 2009; Sacramento County 2008; San Joaquin County 2008a, 2008b, 2009a; Solano County 2008a, 2008b; Yolo County 2010

As compared to existing conditions, the impacts related to the physical division of an existing community under Alternative 2 would be **significant**.

6.4.7.1.2 Impact 6-2: Conflict of Constructed Facilities with an Applicable Land Use Plan, Policy, Regulation, or Restriction on Land That Was Adopted for the Purpose of Avoiding or Mitigating an Environmental Impact

The same type of conflicts with applicable land use plans, policies, regulations, or land use restrictions from construction and operations would occur under Alternative 2 as described under the Proposed Project.

This alternative would have less extensive Delta Ecosystem Restoration projects (described in Section 6.4.3.2), resulting in a smaller affected-area footprint and therefore a reduced likelihood of conflict with land use plans.

Alternative 2 would have more water quality improvement projects (as described in Section 6.4.3.3) resulting in a larger geographic area potentially affected by new facilities and therefore a greater likelihood of conflict with land use plans.

Alternative 2 would restrict development of urban land uses in areas below sea level (shown in Figure 6-14 and Table 6-5), which would result in new local conflicts with land use plans that would not occur with implementation of the Proposed Project.

Although some types of water supply reliability projects (described in Section 6.4.3.1) would be more likely under this alternative, Alternative 2 would have no major water storage facilities, and it is uncertain how these changes would affect the overall footprint, and hence the likelihood of impacts, in comparison to the Proposed Project.

Although some types of Flood Risk Reduction projects (described in Section 6.4.3.4), including floodplain expansion projects, would be more likely under Alternative 2, there would be fewer levee improvements compared to the Proposed Project, and it is uncertain how these changes would affect the overall affected-area footprint, and hence the likelihood of impacts, in comparison to the Proposed Project.

This alternative would have the same number and type of projects described for the Proposed Project in Section 6.4.3.5 (Protection and Enhancement of Delta as an Evolving Place). There would be a similar area of potential physical effect and therefore a similar likelihood of conflict with land use plans for this topic area.

Overall, significant impacts related to conflicts with applicable land use plans, policies, regulations, or land use restrictions from construction and operations under Alternative 2 would be **greater than** under the Proposed Project.

Compared to existing conditions, the impacts related to conflicts with applicable land use plans, policies, regulations, or land use restrictions from construction and operations under Alternative 2 would be **significant**.

6.4.7.1.3 Mitigation Measures

Mitigation measures for Alternative 2 would be the same as those described in Sections 6.4.3.6.1 (Mitigation Measure 6-1) and 6.4.3.6.2 (Mitigation Measure 6-2) for the Proposed Project. Because it is not known whether the mitigation measures listed above would reduce Impacts 6-1and 6-2 to a less-than-significant level for Alternative 2, these potential impacts are considered **significant and unavoidable**.

6.4.8 Alternative 3

As described in Section 2A, Proposed Project and Alternatives, the water supply reliability projects and actions under Alternative 3 would be similar to those of the Proposed Project, although there would be less emphasis on surface water projects. Ecosystem restoration (floodplain restoration, riparian restoration, tidal marsh restoration, and floodplain expansion) would be reduced compared to the Proposed Project, and restoration on publicly owned lands, especially in Suisun Marsh and the Yolo Bypass, would be emphasized. There would be more stressor management actions (e.g., programs for water quality, water flows) and more management for nonnative invasive species. Water quality improvements would be the same as for the Proposed Project. Actions under Alternative 3 to reduce flood risk would not include setback levees or subsidence reversal but would result in greater levee modification/maintenance and dredging relative to the Proposed Project. Reservoir reoperation and rock stockpiling would be the same as for the Proposed Project, as would activities to protect and enhance the Delta as an evolving place.

6.4.8.1.1 Impact 6-1: Physical Division of an Existing Community

The same type of land use impacts related to physical division, disruption, or isolation of existing communities from construction would occur under Alternative 3 as described for the Proposed Project.

This alternative would have less extensive Delta Ecosystem Restoration projects (described in Section 6.4.3.2), resulting in a smaller affected-area footprint and therefore a reduced likelihood for division of an existing community.

Although some types of Flood Risk Reduction projects (described in Section 6.4.3.4), including modification of levees, would be more likely under Alternative 3, there would be no setback levees or subsidence reversal, and it is uncertain how these changes would affect the overall footprint, and hence the likelihood of impacts, in comparison to the Proposed Project.

This alternative would have the same number and type of projects described for the Proposed Project in Sections 6.4.3.1 (water supply reliability projects), 6.4.3.3 (Water Quality Improvement), and 6.4.3.5 (Protection and Enhancement of Delta as an Evolving Place). There would be a similar area of potential physical effect and therefore a similar likelihood of division of an existing community for these topic areas.

Overall, significant impacts related to the physical division of an existing community under Alternative 3 would be **less than** under the Proposed Project.

As compared to existing conditions, the impacts related to the physical division of an existing community under Alternative 3 would be **significant**.

6.4.8.1.2 Impact 6-2: Conflict of Constructed Facilities with an Applicable Land Use Plan, Policy, Regulation, or Restriction on Land That Was Adopted for the Purpose of Avoiding or Mitigating an Environmental Impact

Conflicts with applicable land use plans, policies, regulations, or restrictions arising from construction of conveyance and habitat restoration would be the similar to those for the Proposed Project.

This alternative would have less extensive Delta Ecosystem Restoration projects (described in Section 6.4.3.2), resulting in a smaller affected-area footprint and therefore a reduced likelihood of conflict with land use plans.

Although some types of Flood Risk Reduction projects (described in Section 6.4.3.4), including modification of levees, would be more likely under Alternative 3, there would be no setback levees or subsidence reversal, and it is uncertain how these changes would affect the overall footprint, and hence the likelihood of impacts, in comparison to the Proposed Project.

This alternative would have the same number and type of projects described for the Proposed Project in Sections 6.4.3.1 (water supply reliability projects), 6.4.3.3 (Water Quality Improvement), and 6.4.3.5 (Protection and Enhancement of Delta as an Evolving Place). There would be a similar area of potential physical effect and therefore, a similar likelihood of conflict with land use plans for these topic areas.

Overall, significant impacts related to conflicts with applicable land use plans, policies, regulations, or land use restrictions from construction and operations under Alternative 3 would be **less than** under the Proposed Project.

Compared to existing conditions, the impacts related to conflicts with applicable land use plans, policies, regulations, or land use restrictions from construction and operations under Alternative 3 would be **significant**.

6.4.8.1.3 Mitigation Measures

Mitigation measures for Alternative 3 would be the same as those described in Sections 6.4.3.6.1 (Mitigation Measure 6-1) and 6.4.3.6.2 (Mitigation Measure 6-2) for the Proposed Project. Because it is not known whether the mitigation measures listed above would reduce Impacts 6-1and 6-2 to a less-than-significant level for Alternative 3, these potential impacts are considered **significant and unavoidable**.

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